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SCHOLASTIC COACH

MADISON
SQUARED
GARDEN

TO NICHY
NYAC TRACK MEET
HOCKEY SUN NIGHT
RANGERS, CANADIENS



**MARCH
1936**

Track meet Madison Sq. Garden



Here's the LOW-DOWN on SPALDING'S BASEBALL HIGH SPOTS for 1936

TAKE A MOMENT to look over Spalding's contributions for better baseball in 1936...

Hard-hitting Resilite bats with an added feature: Safety Grip Dots—for power drives.

The new Augie Galan glove, designed by the sensational Chicago player himself—and made with

the full benefit of Spalding's "know how."

Spalding's famous shoes enhanced by the No. 45—a new-comer with the stamp of quality and a price tag that's good news.

For full information and prices write to A. G. Spalding & Bros., 105 Nassau St., New York, N. Y.

A. G. Spalding & Bros.
BASEBALL EQUIPMENT



A VETERAN—Here's the Spalding Official National League Ball, with the patented Cushion Cork Center. Used exclusively by the National League for more than half a century, and in every World Series.

"WORLD SERIES" SHOES—Most popular footgear in the Big Time—and the lightest. Kangaroo leather. Also other Spalding shoes—including the No. 45, an outstanding value in the low-price class.



BRAND NEW FOR 1936—The Augie Galan glove—and a winner! Made of new-color Kromax leather. Easy to break in and it stays put once it's broken in. Also a complete line of superb Spalding gloves and mitts for every player, at every price.



ALSO NEW FOR 1936—The Safety Grip Dots on Spalding's 1936 Resilite bats (one dot for right-handed batters, the other for left-handed). Here is an idea that teaches the player the correct way to hold the bat in order to secure maximum driving power—that makes it easy for him always "to hit with the trade mark up."

● On the back swing, the trade mark turns "in"—but on the forward swing it comes up around to the top. When the bat smacks the ball, the trade mark is up—the edge of the grain is forward—the wrist directly behind the blow. The result—a power drive!

WORTH KNOWING—Both the 1935 National and American League Champions' uniforms were tailored and furnished by Spalding. As a matter of fact, every team in the major leagues, last year, with but one exception, wore Spalding uniforms.

Letters to the editor

Objection sustained

TO THE EDITOR OF SCHOLASTIC COACH:

Here is an item, slipped into your February number, which I am sure you would not approve if you were familiar with the facts. It is the last paragraph of the article "The Crawl Stroke" by Albert W. Gray. The author outlined a typical day's workout which, in my opinion, would be suicide for any boy to attempt. My concern is with the possibility that perhaps some of the younger coaches might read this list of instructions and follow them to the letter, in which case there would be a number of casualties to the physical stamina of schoolboy swimmers. As I see it, our objective is to prepare boys for future competition in college and in a few cases for a place on the Olympic teams. A program such as outlined in the article obviously would defeat this purpose.

JOHN M. MILLER
Director of Athletics,
Mercersburg Academy.

Feb. 7, 1936.

The objection Mr. Miller has raised to the typical day's workout suggested in my article is a just one. It was definitely a mistake to have called it a "typical workout." At least I did not say that the workout *should* consist of the items listed, but that it *might*.

Probably what was behind my suggesting such a heavy workout was a desire to suggest a dose that would encourage coaches away from the "sissy" workouts so commonly given. Coaches then ask why their swimmers haven't the stamina to stand up under an average season of competition. I went too far, I see, through faulty phrasing mainly, because the idea I meant to convey was that a day's workout might consist of any of the items I listed, not necessarily all of them.

I am glad Mr. Miller has taken the trouble to cite this error, and I hope that every coach who reads the paragraph in question will see Mr. Miller's letter.

The extent of a swimming workout, like any other athletic workout, must be regulated by local conditions and each swimmer's condition. Coaches whose teams have access to the pool only once or twice a week are compelled, if they are to round their boys into shape for competition, to give heavier workouts than coaches whose swimmers have daily access to the pool.

ALBERT W. GRAY,
New Haven, Conn., U.S.A.

Feb. 12, 1936.

Pulling our leg

TO THE EDITOR OF SCHOLASTIC COACH:

I want to let you know how much I enjoy Scholastic Coach and how helpful it is to me up here. I first saw a copy of the magazine when I had a substitute's position at Walla Walla, Washington.

Our school is small, and we have only fifty pupils in the high school division. Most of the boys are part Indian and part Eskimo. They are eager to learn both in their school work and in athletics. We have no gym, and all our sports are played outdoors. As the temperature is normally twenty below, you see we have some slight difficulties. I think you will be interested in

Field Event



They're as perfect on the field as a fifty-five-foot shot put, a fourteen-foot pole vault, a twenty-six-foot broad jump, these grand DOLE pineapples when they're picked and squeezed for juice. They're point winners—every one of them—not a second-rater in the lot.

But you can tell that when you sip a cool glass of DOLE Hawaiian Pineapple Juice. You're bound to notice the natural flavor, the absence of preservatives. You'll understand why DOLE Pineapple Juice is becoming a training-table favorite. And you won't be at all surprised to see it right out on tracks and fields this season. You just can't beat it morning, noon, or night.



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IT'S OUR TREAT

We want you to try DOLE Hawaiian Pineapple Juice. If you're a coach, trainer, athletic manager we'll send you a can postpaid, together with a booklet called "Twenty Questions and Answers" that tells you all. Write us today.

Here's where it comes from



and here's a book that tells the fascinating story behind it

THE HAWAIIAN ISLANDS—today's main source of Pineapple—are giving to the world a food which is not only delicious, but which is a definite contribution to the athlete's diet. Behind this great food is a fascinating story that should be read by every high school coach who realizes the importance of food in athletics. If you enjoy tales of strange places and people—if you really want to *know* not only the vivid history of a most delicious food for athletes, but also how Pineapples are planted, grown and canned—then

you'll enjoy reading "The Hawaiian Islands and the Story of Pineapple."

FREE to High School Coaches

This book, profusely illustrated and beautifully printed in color, will be sent absolutely *free* to high school coaches. The coupon below is for your convenience. Just clip it out and mail it today, and your copy of "The Hawaiian Islands and the Story of Pineapple" will be sent promptly. Home Economics Department, Section S.C., American Can Company, 230 Park Avenue, New York, N. Y.

Home Economics Department, Section S.C., American Can Company
230 Park Avenue, New York, N. Y.

Please send me postpaid, a copy of "The Hawaiian Islands and the Story of Pineapple."

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our basketball court. First we selected a level bit of ground—no difficulty here; and then packed the snow hard, and rolled it with an improvised roller. The court lines were made by mixing lamp-black with water and pouring the mixture from a large can on the snow. The lines freeze solid in a second and are fairly permanent. In fact we have trouble in keeping the mixture from freezing before it is poured out.

The boys play in their parkas and in shoes with the fur on the outside. Having the fur on the outside prevents slipping; in fact I think they get better traction than players on a wooden floor. All our games are played at night, the reason being not gate receipts, but the fact that at this time of the year it is night practically all the time. Our lights are not powerful, but the refraction of the rays from the snow gives us plenty of visibility.

We use a regulation ball, the only trouble being that at times the cold makes the leather and bladder so brittle that they crack. We try to overcome this by keeping an extra ball warmed up all the time.

The large fur mittens the boys wear make handling the ball difficult. One of our players invented a pair of lightweight gloves electrically heated from batteries which he carries around his waist. It was a good idea but did not work very well.

You might think our great problem would be to keep the players warm. On the contrary, it is hard to prevent them from becoming overheated. They are so hot at the end of a game that they like to take a bath by rubbing themselves with snow.

When I was in college, our trainer had great belief in the value of a bar of chocolate between the halves. Here chocolate would be acceptable, but better still would be a half pound of blubber. The natives used to look upon tallow candles as a like delicacy, but as all candles are now made from mineral oil they are not used as a food.

Just one more bit that may interest you: we have very little whistle tooting here. Too many whistles have frozen to the tooters' lips, taking away a good bit of skin.

I am looking forward to the January issue.

Jan. 16, 1936

HAROLD FUI
Shungnak, Alaska.

Where to invest your money

TO THE EDITOR OF SCHOLASTIC COACH:

A quick check-up on orders received from my advertisement of "Baseball Coaching Aids" in the March Scholastic Coach shows a highly satisfactory response from 25 states. As I advertised in no other publication, it is accurate to say that this business came directly from Scholastic Coach advertising. Orders came from the following states, the first five in the order of the highest number of responses: New York, Michigan, Massachusetts, Maine, Iowa, Ohio, New Jersey, Georgia, Texas, New Hampshire, California, Pennsylvania, District of Columbia, South Carolina, Tennessee, Kentucky, Connecticut, Maryland, Arkansas, Wisconsin, Minnesota, Louisiana, Nebraska, Illinois, Kansas.

H. S. DeGroat,
Springfield, Mass.

Feb. 17, 1936.

SCHOLASTIC COACH

Reg. U. S. Pat. Off.

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JACK LIPPERT, Editor OWEN REED, Associate Editor

The editor will be glad to consider any manuscripts and photographs submitted to him for publication, if accompanied by stamped addressed envelope for return, if unsuitable.

Scholastic Coach is issued monthly ten times during the academic year (September through June) by Scholastic Corporation, M. R. Robinson, president, Publishers of *Scholastic*, the American High School Weekly for students; and *Highschool*, fortnightly for classroom teachers.

Address all editorial and advertising communications to Scholastic Coach, 250 E. 43rd Street, New York, N. Y.

G. Herbert McCracken, publisher; S. Z. Oppenheim, advertising manager. Western advertising manager, Robert S. Wright, 35 East Wacker Drive, Chicago, Ill.

Subscriptions for the United States and Canada, \$1.50 a year. Foreign, \$2.50. Back issues: 25 cents, current volume; 50 cents, previous volumes. All correspondence concerning subscriptions and circulation should be addressed to Circulation Department, Chamber of Commerce Bldg., Pittsburgh, Penna.

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CCA statements of Scholastic Coach circulation supplied on request. Through this service, Scholastic Coach advertisers receive incontrovertible evidence of the circulation they are paying for.



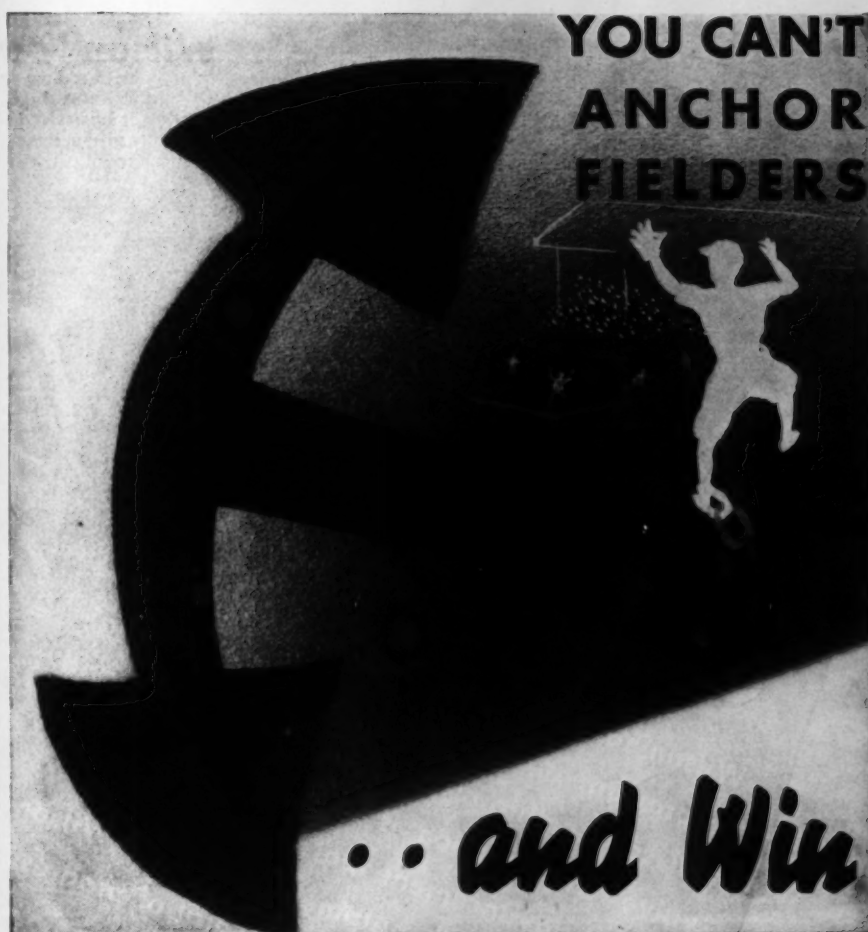
auditing circulation figures for the protection of advertisers. CCA statements of Scholastic Coach circulation supplied on request. Through this service, Scholastic Coach advertisers receive incontrovertible evidence of the circulation they are paying for.

ROUTING SLIP

Cut this out, clip it to the front cover, and use it for routing the magazine to all staff members. After reading this issue, check your classification and pass the magazine along to the next person.

- ☐ Principal
- ☐ Director of boys' athletics
- ☐ Director of girls' athletics
- ☐ Basketball coach
- ☐ Football coach
- ☐
- ☐

Return to:



Babe Ruth's shoulder muscles are just as powerful as ever, his eye is just as keen. But his "underpinning" has betrayed him. He is *anchored*. For a batter has to circle the bases. A fielder has to cover all of his territory.

No coach would ever think of ship's anchors for his men . . . and certainly a school team isn't worried by "age". But you can slow up players with footwear; with footwear that is stiff and uncomfortable, that puts extra ounces on the feet. Worse yet, footwear that isn't strong and sturdy, that will give under a sudden strain, can put a man on the injured list for the rest of a season.

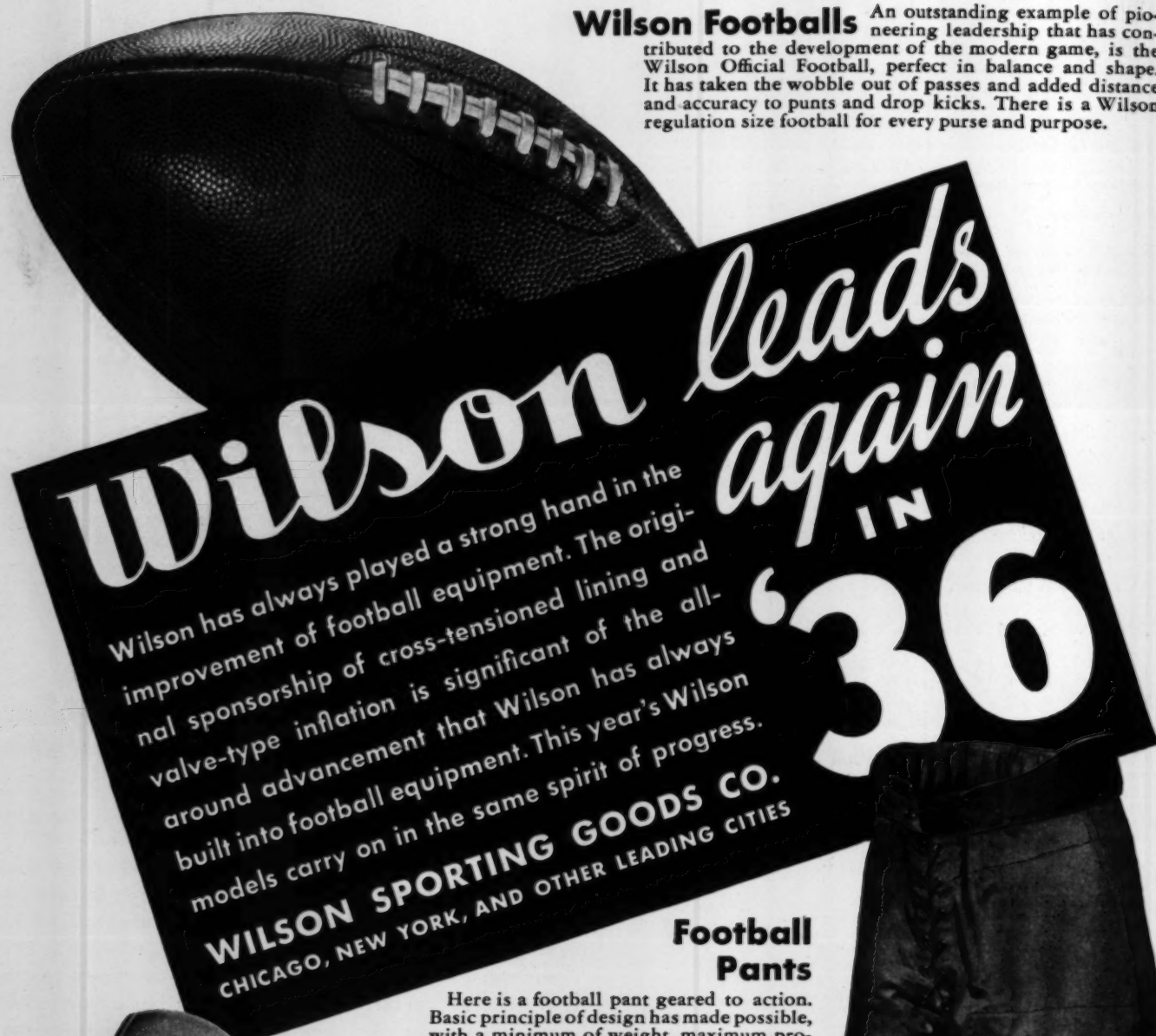
That's why Kangaroo is used. Kangaroo is 17% stronger, weight for weight, than any other leather known to man. It is light in weight. Soft, pliable, and comfortable to the feet. Strong and sturdy for championship play.



Your varsity needs footwear that gives them both SPEED and SAFETY. Put them on the field in shoes of genuine Kangaroo.

KANGAROO TANNED IN AMERICA

Wilson Footballs An outstanding example of pioneering leadership that has contributed to the development of the modern game, is the Wilson Official Football, perfect in balance and shape. It has taken the wobble out of passes and added distance and accuracy to punts and drop kicks. There is a Wilson regulation size football for every purse and purpose.



Wilson leads again
IN '36

Wilson has always played a strong hand in the improvement of football equipment. The original sponsorship of cross-tensioned lining and valve-type inflation is significant of the all-around advancement that Wilson has always built into football equipment. This year's Wilson models carry on in the same spirit of progress.

WILSON SPORTING GOODS CO.
CHICAGO, NEW YORK, AND OTHER LEADING CITIES

Football Pants

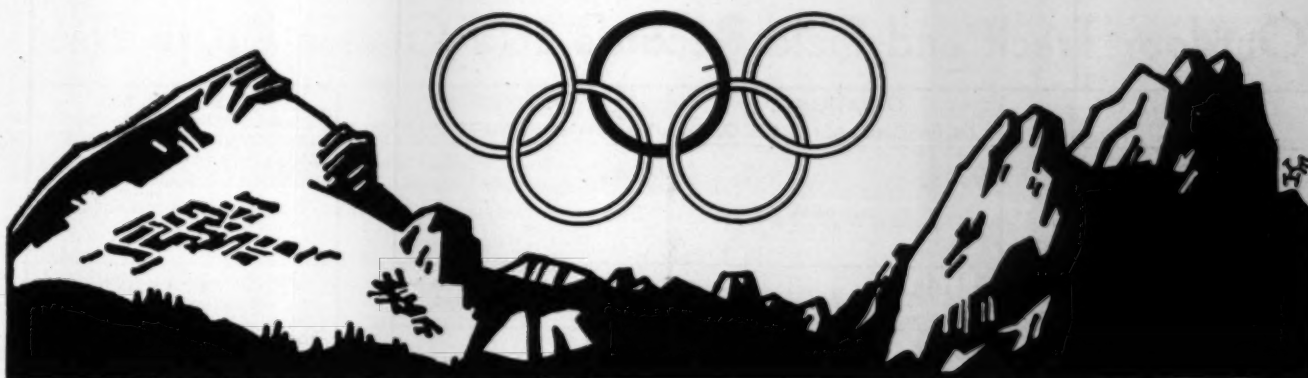
Here is a football pant geared to action. Basic principle of design has made possible, with a minimum of weight, maximum protection at vulnerable points—especially where neuropathic safeguards are needed. The bellows jockey seat, the well-tailored construction and leather reinforcements at points of strain make for freedom of action and long wearability. Just one of a new line filled with exclusive features.

Shoulder Harness

A beautiful job—every edge turned smoothly and finished to perfection. In Wilson equipment the cantilever and other shock-absorbing features are moulded to fit the anatomy, giving maximum protection where needed with no excess weight anywhere. It is an outfit that offers every safeguard without handicapping action. See the new Wilson line of harness before making any definite selection.

Headgear

Have a careful look at this new headgear—corset back, patent ear, low brow—every vulnerable point protected. It's a streamlined, smooth fitting work of master designing. Only a sample of the long line of outstanding models.



Courtesy Organizing Committee for the XI Olympic Games*

• H E R E B E L O W •

Olympic belly-aches

IN view of circumstances that have placed the 1936 Olympic Games in questionable light in relation to the ideal they are supposed to represent and the host nation's offenses against it, Olympic leaders were extremely eager to have the Games themselves run off with the least possible amount of such petty quarrelling and protesting as have characterized past Olympics. But the leaders' eagerness has not been matched by their sagacity, foresight or whatever it is that keeps friction in sports competition down to a minimum, for we have just noted the spectacle of the winter Olympics at Garmisch-Partenkirchen beset by an unprecedented amount of unsportsmanlike monkey-business. It was the usual type of protests over player's eligibility, charges of unsportsmanlike conduct, mis-management, and threats to "pack up and go home." None of these had any connection whatever with Germany's Jewish persecution.

Before the Games opened on Feb. 6, the American bobsledders threatened to withdraw unless they were permitted to use the very narrow runners to which the committee in charge had objected. The Americans won their point. On the opening day, the Canadians protested two of England's hockey players who were, as a result, declared ineligible by the committee, only to cause the English team to threaten to quit unless the players were reinstated; which they were, and the reinstatement scene was marred by an incredibly asinine and hostile remark directed at the English by the president of the American Olympic Committee, Mr. Avery Brundage, who was answered in kind (minus the asininity) by Mr. Walter Hunter, chairman of the British Hockey Federation. On top of this, the Canadian, English and American fancy skaters, denied the opportunity to practice at a certain time when the ice was being

used for other purposes, gave notice that they would not compete unless they were accorded better arrangements. Finally, the United States hockey team, through Manager Walter Brown, cheapened itself by not consenting to postpone play during the final period of the game with Germany when, with a heavy snowfall covering the ice and the Americans leading 1 to 0, the prospects of the Germans tying the score became increasingly remote with each new snowflake. The game went on and the United States won, 1 to 0. We do not say that our team was saved by the snow, but we do say that if Manager Brown himself did not have the sporting stature to suggest postponement, the least he might have done would have been to agree to the referee's proposal when it finally came.

This bickering and childish insistence on having everything one's own way, certainly does not belong in sports' greatest festival. Yet we seem to be having more and more of it. The trouble lies clearly not in the Olympics themselves (which are a glorious institution), but in the state of mind in which the athletes, their managers and Olympic national chieftans go into the Games. They are so bent on winning in order to make themselves look super-heroic back home that they will go to extremes that cannot possibly be reconciled with the real purport of the Olympics. The leaders of each nationality group could correct this if they would by, first, being gracious, self-effacing and always willing to give a point to gain the Olympic ideal; and, second, by sending home any manager or athlete who starts belly-aching outside his own quarters. All squawks should be ordered confined to the ears of the squawkers' national committeemen, who should have enough sense to carry them no further. In the rare cases where events seem to justify a formal inquiry, it should be respectfully requested as an inquiry and

not demanded in a manner which implies that nothing less than the full price is to be exacted from the suspect. And, since this is supposed to be amateur sport and not a business among cut-throats, leaders should be that type of person whose tolerance and generosity of spirit knows no national horizons. Is this asking too much of an international sportsman? Or is our idea of a sportsman cock-eyed? Maybe the 1936 concept of sportsmanship includes "anything as long as you can get away with it." If so, we are probably now digging our vocational grave with the keys of this typewriter.

Jackdaws strut in peacocks' feathers

VISITORS to Germany during the Olympics will see little or no evidence of the Nazi brutality and persecution which have marked Hitler's first three years in power. The Chancellor has ordered all Jew-baiting placards removed from public places for the duration of the Games, and has even called upon his Storm Troopers to refrain from wearing their uniforms during this period. Everything of a superficial nature is being done to make Germany appear the model nation, pure in heart (including blood), and noble in purpose. But the only visitors who will be deceived by this window-dressing are those who by temperament and smugness of intellect are forever turning their heads and minds away from "unpleasantness."

Removing the "Jews Forbidden Here" signs from the streets and recreation centers of Germany is not to be interpreted as repentance on the part of Chancellor Hitler and his colleagues. They have done this only un-

[Concluded on page 31]

*The five interlocking rings comprise the official Olympic emblem and symbolize the international fellowship the Games are supposed to encourage.

Outdoor Track and Field Records at a Glance Up to Date

	O NATIONAL INTERSCHOLASTIC RECORD	● NATIONAL INTERCOLLEGIATE RECORD	■ WORLD'S RECORD
100-YARD DASH	9.4s. Jesse Owens, East Tech. Cleveland, O., 1933	9.4s. Simpson, Ohio State, 1929 (starting blocks) Meier, Iowa State, 1930 (starting blocks) Wykoff, So. California, 1930 Metcalf, Marquette, 1933 Owens, Ohio State, 1935	9.4 Frank Wykoff, U.S.A., 1930 Jesse Owens, U.S.A., 1935
220-YARD DASH (around one turn)	21.4s. Eugene Goodwille, Chicago Univ. H. S., 1923	NO INTERCOLLEGIATE RECORD AROUND A TURN	NO WORLD'S RECORD AROUND A TURN
220-YARD DASH (straightaway)	20.7s. Jesse Owens, East Tech. Cleveland, O., 1933	20.3s. Jesse Owens, Ohio State, 1935	20.3s. Jesse Owens, U.S.A., 1935
440-YARD RUN (one complete lap)	48.2s. Herbert Moxley, Central H. S. (Columbus, Ohio), 1928	46.8s. Glen Hardin, Louisiana State, 1934	46.4s. Ben Eastman, U.S.A., 1932
440-YARD RUN (straightaway)	48.2s. Frank Sioman, Polytechnic H. S. (San Francisco), 1915	47s. (Paced) Maxey Long, Columbia Univ., 1900	NO WORLD'S RECORD ON STRAIGHTAWAY
880-YARD RUN	1m.54.4s. R. L. Rush, Sunset H. S., Dallas, Tex., 1933	1m.49.8s. Ben Eastman, Stanford, 1934	1m.49.8s. Ben Eastman, U.S.A., 1934
ONE-MILE RUN	4m.24.7s. Glenn Cunningham, Elkhart H. S. (Kan.), 1930	4m.6.7s. Glenn Cunningham, Kansas June 16, 1934 at Princeton, N. J. See note below*	4m.6.8s. Glenn Cunningham, U.S.A. June 16, 1934 at Princeton, N. J. See note below*
TWO-MILE RUN See note below†	9m.51.4s. Allen Swade, Mercersburg Acad. (N. J.), 1918	9m.13.6s. H. A. Brocksmyth, Indiana, 1932	8m.59.6s. Paavo Nurmi, Finland, 1931
120-YARD HURDLES 3ft.6in. hurdles See note below‡	14.7s. Phillip Cope, Classen H. S., Stillwater, Okla., 1933 See note below‡	14.1s. George Saling, Iowa, 1932 (World's record not applied for)	14.2s. Percy Beard, U.S.A., 1931 Tom Moore, U.S.A., 1935 Phil Cope, U.S.A., 1935 Roy Staley, U.S.A., 1935
220-YARD HURDLES 2ft.6in. hurdles (around one turn)	24.4s. C. Cory, Chicago Univ. H. S., 1913 F. Loomis, Oregon H. S. (Minn.), 1916 D. Kimball, Deerfield-Shields H. S., 1920	23.8s. C. R. Brookins, Iowa, 1924	NO WORLD'S RECORD AROUND A TURN
220-YARD HURDLES 2ft.6in. hurdles (straightaway)	23.5s. A. Oliver, Roosevelt H. S., Dayton, O., 1931	22.6s. Jesse Owens, Ohio State, 1935	22.6s. Jesse Owens, U.S.A., 1935
RUNNING HIGH JUMP	6ft.6in. Willis Ward, Northwestern H. S. (Detroit), 1931	6ft.9 1/16in. Walter Marty, Fresno State, 1934	6ft.9 1/8in. Walter Marty, U.S.A., 1934 §
RUNNING BROAD JUMP	24ft.11 1/4in. Jesse Owens, East Tech. Cleveland, O., 1933	26ft.8 1/4in. Jesse Owens, Ohio State, 1935	26ft.8 1/4in. Jesse Owens, U.S.A., 1935
POLE VAULT	13ft.6 1/2in. Wm. Sefton, Polytechnic H. S. (Los Angeles), 1932	14ft.5 1/8in. Keith Brown, Yale, 1935	14ft.5 1/8in. Keith Brown, U.S.A., 1935
12-POUND SHOT PUT	58ft.10in. Elwyn Dees, Lorraine H. S. (Kansas), 1930	NO 12-LB. INTERCOLLEGIATE RECORD (16-lb.—Jack Torrance, La. State 55ft. 1 1/2in., 1934)	NO 12-LB. WORLD'S RECORD (16-lb.—Jack Torrance, U.S.A., 1934 57ft. 1 1/2in.)
DISCUS THROW	154ft.6 1/2in. J. C. Petty, Kaufman H. S. (Texas), 1931	167ft.5 3/8in. Eric Krenz, Stanford, 1930	171ft.11 3/4in. Harald Andersson, Sweden, 1934**
JAVELIN THROW	205ft.1 1/4in. J. H. De Mers, Sand Point H. S. (Idaho), 1927	221ft.3 1/8in. Chas. Gongloff, U. of Pittsburgh, 1935	249ft.8in. Matti Jarvinen, Finland, 1933
RELAY—440 YARDS	42.4s. Glendale H. S. (Calif.), 1928	40.6s. Univ. of Iowa, 1935	40.8s. Univ. Southern California, U.S.A., 1931
RELAY—880 YARDS	1m.28.2s. Polytechnic H. S., Los Angeles, 1931	1m.25.2s. Univ. of Iowa, 1935	1m.25.8s. (Univ. Southern California, U.S.A., 1927)
RELAY—ONE MILE	3m.21.4s. Hollywood H. S. (Calif.), 1929	3m.12.4s. Univ. So. Calif., 1935	3m.12.4s. Univ. So. Calif., 1935
RELAY—TWO MILES	8m.9.3s. Deerfield-Shields H. S. Highland Park, Ill., 1931	7m.42s. Georgetown, 1925	7m.41.4s. Boston A. A., U.S.A., 1928

O Approved by National Federation of State High School Athletic Associations.

● Approved by National Collegiate Athletic Association.

■ Approved by International Amateur Athletic Federation. (Or pending.)

†Next year the records will list the two new hurdles events, set up last year for the first time by the Track and Field Rules Committee expressly for high school competition: the 120-yds. hurdles event over hurdles 3 ft. 3 in. in height; and the low-hurdles race at 200 yards instead of 220 yards. Best time made last year over the 3 ft. 3 in. high hurdles was 15.1s. by Sparkman of Waurika, Okla., H. S. Best time over the 200-yds. low-hurdles race was 23s. by Unsell of Canute, Kan., H. S.

‡The two-mile run no longer appears in the official records as compiled for the Track and Field Guide by the National High School Federation Track and Field Committee, E. A. Thomas, Topeka, Kan., chairman and national representative. Moreover, this Committee no longer recognizes for high school classification records made in prep school and military academy competition. The Committee may, at some future date, set up a separate set of records for this group, as the Swimming Records Committee has done.

*The discrepancy of one-tenth of a second between Glenn Cunningham's world's record for the mile and his intercollegiate record for the mile (both of which are derived from the same race, June 16, 1934, at Princeton, N. J.) is ascribable to the International A.A. Federation's refusal to recognize records in tenths of seconds for events longer than 1,000 yards. Hence, Cunningham's 4m. 6.7s on the stop-watches becomes 4m. 6 4/5ths when read at the fifth-second; and 6 4/5ths transposed into tenths becomes 6.8.

**On April 29, 1935, Hellmut Schroeder of Magdeburg, Germany, threw the discus 53.1 meters, or 174 ft. 2.4 in., which, if accepted by the I.A.A.F. will displace Andersson's record.

§On Feb. 22, 1936, in Madison Square Garden, Cornelius Johnson of Compton Junior College and David Burke of Marquette Univ. jumped 6 ft. 8 15/16ths in., to share the A. A. U. national indoor championship.

WORLD'S GREATEST ATHLETE; HOW HE TRAINS

By Larry Snyder

This is the story of Jesse Owens' training methods by his coach, Larry Snyder of Ohio State University. We believe few will quarrel with our title to Coach Snyder's article—"World's Greatest Athlete." The cautious, who raise their eyebrows at the use of superlatives, are referred to the table on the opposite page. The name of Owens dots it like mountains on a map of Tibet. No athlete has ever risen to such heights, performed such wonders in one afternoon, been so consistently successful in four events through high school and college.

It is the hope, perhaps the prayer, of every track coach to have under his tutelage an athlete with the physical and mental attributes of a world champion. Jesse Owens, Ohio State sophomore track sensation of 1935, fulfilled my hopes.

The sprint champion must be gifted by nature with at least an average set of muscles and tendons. However, his nervous system must be a high tension system capable of carrying a strong stimulus to the muscles. I think that the nervous system (plus certain glandular activity) is the key to championship performance. A normal heart can, by careful training, be strengthened to carry the load of intense competitive effort without strain. Likewise, an average set of muscles and tendons will grow and toughen with athletic endeavor. The lungs will develop as the training continues; and the processes of elimination, which along with the nervous system control the relaxation so necessary to high class competitive effort, are regulated by proper warm-up activity daily.

Heredity plus

My point is this: Jesse Owens, who in 1935 established eight new world records and tied another,* became the greatest track athlete of all time through careful training and with the aid of a high-tension nervous system. Possibly that gives heredity a bit the best of the argument. Nevertheless, without the whole-hearted willingness to train so that the other systems of his physical makeup kept pace in fine alignment, Jesse Owens could not have become a champion. Enough of that.

When you, as a coach, get this latent champion, this answer to your

prayers, your responsibilities redouble. Here is a boy who must not be overworked. He must have exactly the correct amount of training. He must have confidence in your judgment, and you must have that same confidence in yourself, plus good reasoning for what you are doing. It is necessary that the boy know why certain things are being done if you are to get his fullest cooperation. Jesse and I have talked twice as many hours in the office as we have spent on the track together.

Easy to coach

Let me say that Jesse Owens is a great boy to work with. Did you ever have a champion who would take your every suggestion and was willing to try it thoroughly, and one whom if you needed five more points in a track meet was willing and able to go out and get them? Jesse Owens is just that sort of a boy. He is perfect from the coaching angle.

I have coached a few boys who were very, very good, but who were not easy to coach. They thought they knew how to do things, and did not want to change, and the work had to be done in a very roundabout manner with them; then when the idea came to them as their idea, it was good.

Jesse Owens listens and then he tries to put the suggestions into practice. He is so well coordinated that even a radical "form" change in starting, or any other phase of running, becomes a part of his style after a very few practice sessions.

Contrary to the opinion that some of you may have, neither Jesse nor I feel that he has been overworked. During his freshman year at Ohio State, he was never allowed to work

[Concluded on page 32]

Owens Breaking the 220 Hurdles Record

Pictures taken at the first hurdle in the final of the 220-yard low hurdles in the Western Conference championships at Ann Arbor, May 25, in which Owens set the world's record of 22.6 seconds, breaking by .4 second the record set by Brookins in 1924 and equalled in 1933 by Paul. Two other world's records were broken (the 220-yard dash and the running broad jump) and another equalled (the 100-yard dash) by Owens the same day.



*They are: 60-yds. dash (indoors) 6.1 secs.; 60-mtrs. dash (indoors) 6.6 secs.; 100-yds. dash (tying world's record) 9.4 secs.; 220-yds. dash, 20.3 secs.; 200-mtrs. dash, 20.3 secs.; 220-yds. hurdles, 22.6 secs.; 200-mtrs. hurdles, 22.6 secs.; running broad jump, 26 ft. 8 3/4 in.; indoors running broad jump, 25 ft. 9 in.

BASEBALL REVIVAL

By Charles E. McLaughlin

Mr. McLaughlin, former Ohio State player, is assistant baseball coach at Carteret Academy in New Jersey.

SCHOLASTIC baseball has had a heavy burden to bear in the past ten years. Football and basketball have come up to win first place (call it a dead heat) in the hearts of American boys, and the once secure "national pastime" has had a hard time staying in the race. It breaks the heart of this ardent wooer of the gloved hand to admit as much, but the fact is that the American boy doesn't go for baseball in numbers as great, nor with enthusiasm as high, as he once did.

There are some signs today, however, that baseball is staging a partial comeback. The development of football and basketball was only one reason for baseball's retarded pace. The depression, with its disastrous effects on school athletic budgets, in many schools proved fatal to baseball when it only rendered a flesh wound to the more income-bearing sports of football and basketball. Now that people and schools have more money to spend, a warmer welcome is extended to baseball by school sports authorities. The big leagues and the sporting goods industry are seizing this opportunity to promote baseball through instructional moving pictures, lectures and other services which schools and other institutions may obtain gratis. The photographs on these pages are evidence of one of these services: they are from the motion picture film "Play Ball" produced by the American League and distributed to institutions by the Fisher Body Division of General Motors Corporation.

Another harbinger of a brighter future for baseball is seen in the awakening of coaches to the situation today which finds boys in our schools who have never played a serious game of baseball in their lives. When you and I were young, little Chumleigh Throckmorton, 3rd, would, without much goading, put down his books and play

an inning or two before he hurried to dancing class. As a result, Chumleigh ripped the seat out of many a pair of velvet pants before he reached high school, and when he did get there, not even Tony Mattziotti, the butcher's son, was any more adept at stepping on an umpire's feet. Baseball was a part of every boys' experience in those days; he got his baseball without benefit of clergy or coach. Today's youngsters, their lives enfolded by the school, and particularly their recreation and games, are not likely to experience the thrill of the crack of bat against ball unless the school arranges it. And this requires more than administration; it requires competent instruction.

Common weaknesses in high school baseball

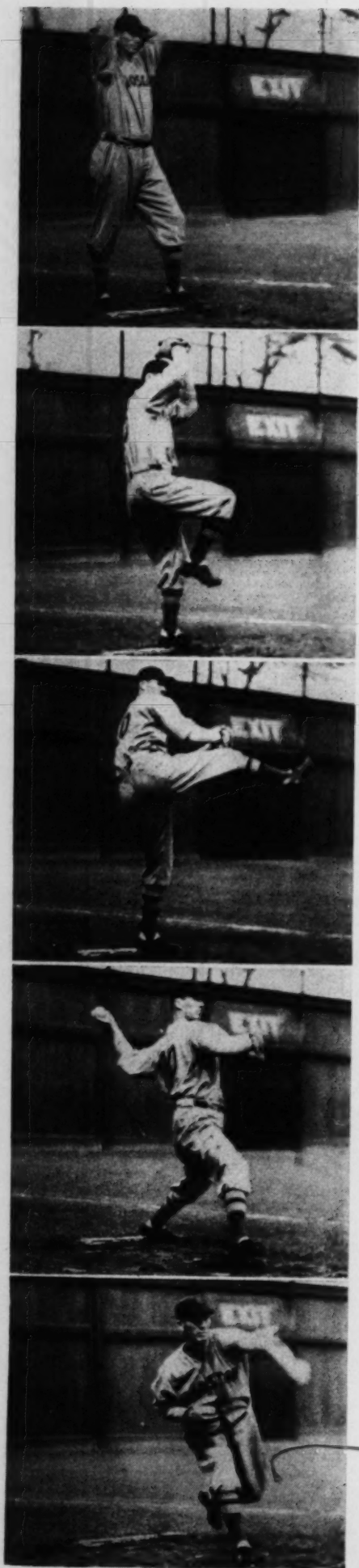
The paragraphs which follow are disconnected jottings from my notebook covering weaknesses of high school baseball teams observed in many state and sectional tournaments. It is by no means a complete list, but I believe the more common and costly weaknesses are represented. Every reader will have something to add to the list.

Wild throws. More high school games are lost by wild throws than by all other errors combined. Happily, the throw-the-ball-regardless attitude tends to disappear with age. In formal fielding practice, the coach should have each player keep mental track of his throws in terms of those that are wild and those that go to the mark. This will tend to make the players more careful on every throw. If a certain player is making an unusual number of wild throws, a change in position for him, perhaps only temporarily, may improve his accuracy. If the third baseman is having a streak of bad throws to first base, have him exchange positions with the shortstop. This psychology can be applied more successfully with some players than with others. One cause of poor throwing may be the player's failure to "catch the ball before he tries to throw it," and his failure to set himself and take his time when he has time to take. Wild throwers should always be required to go through a session of slow throwing, first without a base-runner; and then with a base-runner.

Poor hitting. So many young players, especially those of today who have not come up from the cradle with a

Fire

Lefty Grove of the Boston Red Sox, the great "fire-ball" pitcher. These pictures, from the official American League instructional film "Play Ball," bring out the key stages in the mechanics by which Grove generates the power behind his tremendous speed. ("Play Ball" is distributed by Fisher Body Division of General Motors Corp., Detroit.)



ball and bat, are afraid of fast-ball pitching. These boys have to be handled with care and kindness. Ridicule should be taboo. First, make certain that the boy knows how to bat in good form against mild pitching, including outcurves. Make him a good judge of ball and strikes with this sort of pitching, before serving him up the kind of speed that will cause him to lose his form and his self-possession. Check his tendency to pull his front foot back by placing a bat along the ground as a boundary line. Keep throwing him easy straight and curve balls, until he "looks good in there" on that kind of pitching. Then have the speed of the pitches increased, gradually but perceptibly. At the first sign of fear, talk to the batter in encouraging tones and order the pitcher to ease up a little on the next few. Then give the batter a rest. But don't send him out of the batter's box the instant he shows his old weakness. Let him have two or three more swings before sending him away. Never allow a pitcher whose control is bad to throw to the timid batters.

Sliding. Curiously enough, the hook slide, which is the most difficult, is executed rather well by high school players. However, of 47 runners sliding into second base in a recent state tournament, 34 slid to the *wrong side* of the bag. A runner's mind should work something like this: "I'm going to run as hard as I possibly can the instant I'm sure the pitcher is going to throw to the catcher. I'm going to leave my feet in time to avoid over-sliding. If the throw appears to be high, I'm going for the *front* of the base; if it's low, I'm going in *back* of the base. If the throw arrives at the base ahead of me, I will not reveal my intentions until the last possible instant, falling away from the baseman's hand quickly, but hooking the bag firmly. I don't want to hurt anyone, but the ground over which I must slide to reach the base belongs to me, and the baseman occupies it at his peril. My spikes do not belong in the territory outside the baseline, or in the air above the base. When I slide, the knee of the leg leading the slide will always be bent, for I understand thoroughly that catching the spikes of that heel in the ground will pitch me face forward in the direction of a broken ankle." "A school which feels that sliding pads are a luxury its players can do without, is guilty of negligence. Beyond handicapping the boys in a baseball way, such neglect may result in a serious infection. Unfortunately, the doctor can't lance the school; the best he can do is to cut into the flesh of a boy's hip.

Base coaches and base-running. Many coaches devote hours trying to teach

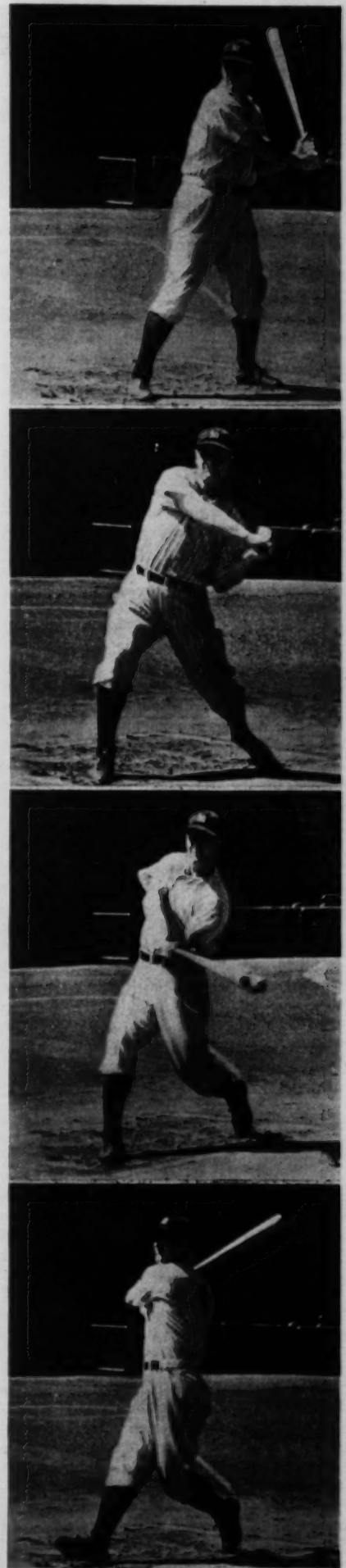
base-running and five minutes to instructing base coaches. The two smartest members of your squad should be at first and third when your team is batting. Runners should rely on the coach's judgment to the exclusion of their own judgment. All orders given when the runner is actually running should be communicated by motions, not by shouting. "High school base-runners never seem sure of what to do on fly balls hit to the outfield. The "half-way" rule should be learned the first season out. "A runner, doubled by a really hard hit infield line drive, may look foolish to the spectators, but he looks worse than foolish to the coach if he's *not* doubled. The percentage is in favor of going with the crack of the bat, if you occupy first base, unless the ball is hit to the third baseman. Even then the ball may be dropped and a double play result. I have seen many high school infielders smart enough to drop line drives and thereby get both men. "On hits into the outfield only the runner should know whether he will continue down to second. He decides when he is at least fifteen feet past first, around the turn. Thus, the slightest fumble, the least hesitation, on the outfielder's part may be taken advantage of instantly. I consider this the most difficult of all plays for high school boys to master. Few college runners take full advantage of it.

Holding runners on first. It is necessary that the pitcher understand the use of the wind-up in regard to base runners, and that the correct use of the pitch-out be thoroughly mastered. Variations of the following method of holding runners on first base are used by practically every right-handed big league pitcher. No other that I know of can compare to it in effectiveness: Once having taken his position, ready to pitch, the pitcher should not look directly at first base. Doing so breaks the rhythm and warns the base-runner of the possibility of a throw. As the pitcher looks toward the batter, the runner may be seen distinctly out of the corner of the left eye, without turning the head. It is important that the pitcher relax. During this instant

[Concluded on page 30]

Power

Lou Gehrig of the New York Yankees, one of the leading hitters of modern baseball, demonstrating the full swing with its attendant shift of weight from the rear leg to the front, in the film "Play Ball." Gehrig cannot always be counted on to conform so closely to model form, as witness the pictures of him on page 30 showing a wide stride and the consequent prematurely-dipped rear knee.



FROM THE STATES

This department includes correspondence from state high school coaches associations and state high school athletic associations. All states are invited to participate.

Illinois

New tournament plan

THIS year the Illinois High School Athletic Assn. inaugurated a new tournament plan for basketball. In the past the state championship has been arrived at through a series of three tournaments. This year an additional round has been added, so that the series is made up of four tournaments. In the first round or *district* tournaments the schools having the poorer records for the season play to a tournament winner. From the district tournaments the winner and runnerup enter the second round or *regional* tournament. The winner and runnerup of each regional tournament play in sixteen *sectional* tournaments and the sixteen sectional winners play in the *state finals*.

The mechanics of the system are as follows: The 880 entering schools are first divided into 64 regionals. This places approximately 14 teams in each region. Each of the 14 teams sends to the state office a rating of the estimated strength of all teams in its own region. These ratings are averaged in the state office and the eight teams having the lowest average rating are placed in the district tournaments. This means that the six strongest teams are automatically given byes and go directly to regional tournaments. The weaker teams play it out during the last week in February, and the winners play the next week along with those teams rated strongest.

The advantage in this system is that the number of games between very unevenly matched teams is reduced. Sentiment which has been gathered to date indicates that the new plan is popular. It is probable that it will be continued in future years.

Small schools strong

One of the outstanding features of the basketball season in Illinois seems to be the great number of unusually strong teams from small schools. In many cases these small schools have been able to defeat teams from schools having fifty to one hundred times their enrollment. Among the very strong small school teams are Hull, Brocton, Oblong, Carterville, Eldorado, Athens, Mt. Pulaski, Harlem of Rockford, Lockport and Pearl.

Basketball experimentation

The Illinois Basketball Committee has been rather active in conducting experimental work in connection with some proposed rule changes. A number of schools have been playing games in which the center jump was eliminated after field goals. In order that the game would not be speeded up too much, they have provided brief rest periods by having the ball awarded to the opponents after a field

goal, either at the end of the division line or in the center circle. In all cases the referee must handle the ball and give it to the proper player. This makes about the same length of rest period as if the ball were tossed for a jump at the center circle.

Considerable experimentation has also been made with three restraining circles for the jumps. Two of these are at the freethrow line and the third is a circle of a like size around the center circle. In this case all held balls anywhere on the court are brought to the nearest circle to be jumped. This procedure relieves most of the crowding and confusion which so often has accompanied jump balls.

Other schools have been playing the game by retaining the center jump after field goals but have used a system of rotation for the jumpers.

Another line of experimentation has been in connection with the size of the backboards. Since there is considerable agitation for extending the end lines to four or six feet beyond the backboards on courts long enough to permit it, the question arises as to whether backboards need to be as large as that now prescribed as the official size (6 feet by 4 feet). It is probable that corners could be removed from the backboard and that possibly six to ten inches could be taken away from top and bottom of the boards without seriously affecting the making of field goals. This would allow slightly more freedom from the corners of the floor behind the plane of the backboard. Another advantage would be in the fact that spectators behind the backboard would have a better view of the ball on a try for goal. One of the big disadvantages of basketball is in the fact that the number of good seats between goals is limited. The short length of the floor makes it necessary to have several balconies if numbers of people are to be given seats which will permit them to see the ball in all situations. Not many gymnasiums are equipped with the necessary balconies. As a result, half of the seats are such that the front of only one goal can be seen.*

Another device which is designed to increase the interest of spectators and to make seats behind the backboard more valuable is a goal-recording device which causes a light to flash on when the ball goes through the basket. The best of these is a basket made of metal strips with the regulation ring at the top and a smaller ring at the bottom. There is a trapdoor in the bottom of the basket connected with a time switch. When the ball goes through the basket a light flashes and remains lighted for a couple of seconds. This device has possibilities and it would not be

*Transparent glass backboards, edged with a 3-inch opaque white border, are used at Madison Square Garden, thereby permitting 18,000 spectators to see both baskets clearly, instead of 8,500 spectators seeing only one, which would be the case were wooden or metal boards used. Glass is legal according to the official national rules, but not if it is transparent, for Rule 2, Sec. 1 requires that "the faces of the backboards shall be painted white." So Madison Square Garden's backboards are illegal, but this does not worry Director Ned Irish as long as it makes the cash customers happy.

surprising if it became standard equipment within the next few years.

State swimming meet

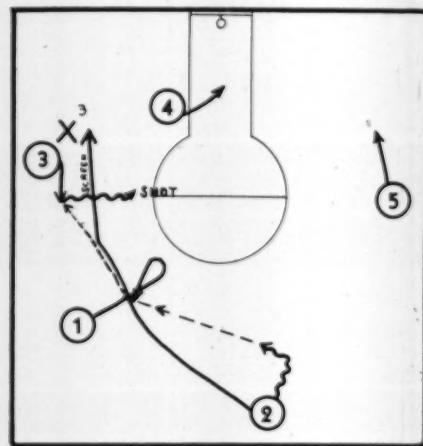
The Illinois state championship swimming meet was held in the Oak Park-River Forest High School Feb. 28-29. Among the participants was Adolph Kiefer of Roosevelt High School of Chicago who holds a number of world's records in the back stroke. Kiefer holds all Illinois interscholastic records in the back stroke. The outstanding swimming teams during the last several years in this locality have been produced by Maine Township High School of Des Plaines-Park Ridge. During the four years that state championships have been sponsored in Illinois, Maine has won three of them.

H. V. PORTER,
Illinois H.S. Athletic Assn.

Wisconsin

Report on basketball clinic

ONE of the outstanding events of the year for Wisconsin coaches was the basketball clinic held at Lawrence College, Appleton. In spite of the very cold weather, more than 500 school men and players were on hand. The program was arranged by the Coaches Association, with Coach



DIAG. 1

Freeing a forward for a medium-length shot against a close man-to-man defense. 2 dribbles down with change of direction, preceded by 1, who reverses to receive bounce pass from 2. 1 hands ball back to 2 on outside cut, and 2 bounce-passes to 3 pulling out and then 3 dribbles across for shot behind 2's screen. 4, 5 and the shooter work on the rebound.

Art Denney of Lawrence throwing open all the fine facilities of his field house for the visitors, in addition to demonstrating with his squad several ideas of offensive maneuvering against a man-to-man defense particularly adaptable to the new three-second rule. Denney showed a style of play against a close retreating defense which works forwards free for medium-length shots as shown in Diag. 1. The guards maneuver the ball carefully, throwing

screens on either side as the forwards slide around them for good shots. In *Diag. 2*, Denney illustrated guard play which is effective when the front line defense checks on criss-crosses. In *Diag. 3* he shows the maneuver when the defense do not check, but stick tightly to their assignments. He also showed several screening set-ups with the center just off the lane on the side, and the forwards doing a lot of crossing through the foul-line area for shots, one of which is illustrated in *Diag. 4*.

Coach Bob Kolf of Oshkosh Teachers College talked on individual defensive play and stances. He demonstrated the method he advocates for stancing and shifting against a left-handed guard when playing the front line. He uses one foot in advance of the other, matching hands, and with the rear leg distended fully. He felt his men could push back quickly from this stance, and be most effective in keeping the men from cutting in their favorite direction with this method than with feet parallel and even. He stressed the point that the guard should be aggressive and feel positive he is going to keep his man out of the play and from scoring.

Coach Ole Jorgensen and his high school squad from Neenah showed a variety of shifts in the zone defense, pointing out its weaknesses against shots from the corner and sideline, and its strength against short shots. He also illustrated methods of working the ball rapidly around and through the zone for good shots.

One of the highlights of the program was the experimental game between Coach Mart Gharrity's Shawano Indians, who are undefeated after 14 games, and Coach Joe Shields' Appleton Terrors, another fine team. In this game three experiments were tried. First, elimination of the center jump; second, all held balls were jumped in one of three circles; and third, the last five minutes were played with the one-dribble rule. Werner Witte, member of the National Federation Rules Committee passed out questionnaires which were filled in immediately after the game. Forty-three coaches filled in reactions as follows:

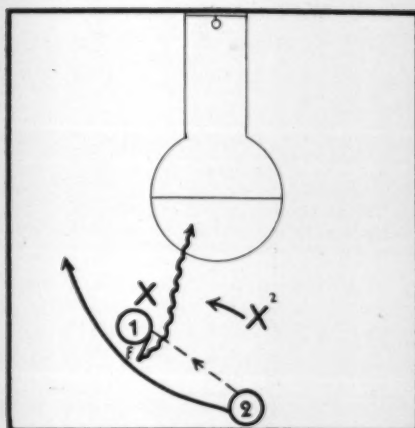
1. Would you favor elimination of the center jump? **Yes 31, No 12.**
2. Do you favor having all jump balls in three circles? **Yes 25, No 16.**
3. Do you like the present three-second rule? **Yes 36, No 7.**
4. Would you like to see the ten-second rule adopted in Wisconsin? **Yes 24, No 18.**
5. Would you favor a one-dribble rule? **Yes 4, No 39.**

It might be said that the one-dribble rule did not get a fair test, as neither of these two teams had been coached to play it effectively.

In concluding the program, Dave Woodward, former trainer at Minnesota, and now with the Green Bay Packers, demonstrated several types of taping injured ankles and legs. He also showed several first aid points that were well received.

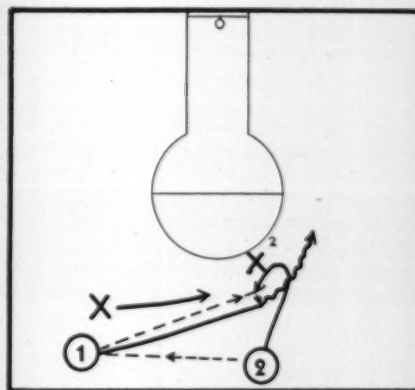
Tourney prospects

Latest dope from the various Wisconsin conferences reveal several state teams still undefeated at this writing in their conference play. Among the leaders are Shawano, Green Bay East, Wausau, Rhine-



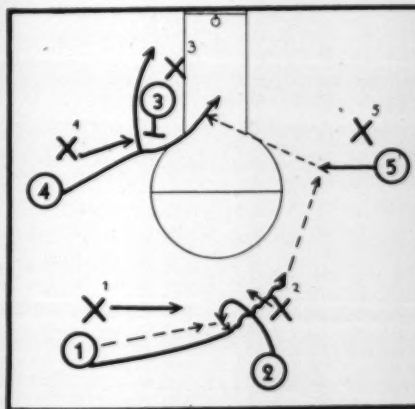
DIAG. 2

Effective guard play when the front line defense switches on criss-crosses. Guards 1 and 2 maneuver until 2 bounces to 1 ahead in reverse position (back to basket). 1 fakes a hand pass to 2 coming down the outside, but reverse dribbles through center lane open because X2 failed to close in soon enough, as he had been playing wide to handle the switch.



DIAG. 3

Deception to free a guard in this inter-guard play, when the defense is not switching. 2 passes across to 1 and cuts in fast, makes a surprise stop and reverses a step or two to receive return pass. 1 cuts fast to the right and accepts hand-pass from 2 who conceals his intention as long as possible.



DIAG. 4

Use of forwards (4 and 5) on pull-ins from side. Guards 1 and 2 exchange passes, and execute deception similar to the play in *Diag. 3*. 5 slides in from side to take bounce pass from 1. 4 pulls in diagonally, passing either inside or outside screen set up by center 3. This faking, 5 drag-dribbles for further developments.

lander, in the larger conferences; others are Belmont, Adams-Friendship, Elmwood, Kiel, Cottage Grove, Oakfield, Juneau, Eagle River, Random Lake, Wauzeka, Elroy, Barneveld, Spooner, Reedsville, Plainfield, Princeton, Middleton, Norwalk, Crivitz, Augusta, Milltown, Burlington, Fort Atkinson, Belleville, Mt. Horeb, and Cuba City. Chief contenders for the coming state championship are hard to pick at this time, but the most prominent possibilities seem to be Beloit, Shawano, Wausau, Racine Horlick, Superior, Wisconsin Rapids, Marshfield, Rhinelander, Madison East or West, and West Milwaukee. Any team is likely to upset any of these named, however. It is unfortunate that teams from Milwaukee, LaCrosse, Green Bay, Appleton, Oshkosh, Manitowoc, Milwaukee suburbs, Fondulac, Sheboygan, and Waukesha are not permitted by their administrations to play in the state tourneys. This means that many of the largest cities in the state do not participate.

Switch state track meet

The state track meet will be held at Milwaukee North High School this year instead of the University of Wisconsin for the first time in history. Since most of the track interest is nearer this center, the new plan should work out satisfactorily under high school management.

Annual meeting

Plans are nearly complete for the annual meeting of the Coaches Association at the state basketball tournament at Wisconsin Rapids. The session will be informal on Thursday night, March 26, with several get-togethers planned after the games that night. There will be a luncheon at the Elks Club on Friday (March 27) noon, followed by the program of talks and demonstrations. The annual election of officers and business meeting will follow. Intramurals, basketball, track and field, baseball, and motion pictures will comprise the program. Handling of injuries will also come in for some demonstration work. We expect about 300 coaches to attend.

LOUIS E. MEANS
President, Wisconsin
Coaches Assn.

North Dakota

State tourney, March 19, 20, 21

THE Board of Control, consisting of Supt. White of Minot, Prin. B. C. Tighe of Fargo, Supt. Robertson of Jamestown, Supt. Dominick of Wahpeton, and Supt. M. B. Zimmerman of Grafton, met in Fargo Jan. 2 and set the dates for the state basketball tournament—March 19, 20 and 21, the first time that North Dakota has had a three-day tournament.

There will be 12 teams entered, which is the number now comprising the Class A schools. Devil's Lake has been challenged by Grafton, Class B winner last year. Bismarck has been challenged by St. Marys of Bismarck.

Dick Holzer of Moorhead, and Cy Holgate of Aberdeen, have been named officials for the tournament.

Big crop of zone defenses

The new three-second rule has increased production in zone defenses this season. But inquiries around the state reveal that the three-second rule and its consequence—the zone defense—are not so popular in this state as they may be elsewhere, because basketball floors in North Dakota are, as a rule, small. With the use of the backcourt eliminated by the center-division line, and now the freethrow lane forbidden territory (for all practical purposes), there is not much floor space left in many of our old-style gymnasiums. The writer saw one game that was a succession of held balls during the first half, and a barrage of long shots during the second half. Both teams used zone defenses. The result was not a happy one, and we predict a hue and cry issuing up from schools with small floors for some change that will make their contests more interesting, rather than less so. The out-of-bounds ball following a successful freethrow has caught the fancy of North Dakota fans, and the writer believes the elimination of the center jump after field goals will further contribute to the game's popularity.

The three-second rule was also supposed to relieve congestion in the area near the basket, and reduce personal contact by curbing the pivot man. Whatever relief and reduction have been accomplished appears negligible to this observer. Now there are two pivot men where we formerly had one, and the traffic jam is worse than it was. I suggest further experimentation with this rule for the benefit of teams having small floors.

L. C. MCMAHAN,
Secy., North Dakota Coaches' Assn.
Mandan, N. D.

Connecticut

Sponge rubber for protection

WHILE the entire state is engrossed in basketball and leading teams are playing their final games with an eye on the tournaments scheduled for the first week in March, there are still frequent repercussions from the already famous Football Injury Panel, held in December.

Coaches became "injury conscious," so to speak, and began looking about for means and methods of protecting all athletes under their care in all branches of the sports program. This has led to an important discovery by Coach Ralph Walker of New Haven Commercial. He stumbled upon a sponge rubber product—a two-piece affair—consisting of helmet and shoulder pad.

Extremely light, it is capable of absorbing shocks of all kinds to a much greater degree than the usual felt. These pads became so popular that the hockey team was fully equipped, though without either head or shoulder gear of leather, and the results were highly successful. The weight is, of course, negligible, and no concussions or flesh wounds have resulted from contact with boards, ice, skates or sticks, on the parts thus protected.

Coach Walker is now working with the manufacturer to produce elbow and hip pads of this same sponge rubber material, believing that the former will prevent practically all collar-bone breaks.

The idea of the elbow pad came from remarks made by Mr. P. F. Neverman of the Wisconsin High School Athletic Assn. at the December panel. Incidentally, Mr. Neverman is experimenting with the same material.

Of course, equipment is not the whole answer in preventing injuries to athletes in practice and competition. As brought out in that panel, rules and their enforcement play a big part. And while on this subject, it may be well again to emphasize the important statement made by William J. Bingham, graduate manager at Harvard and member of the National Collegiate Rules Committee, that "the high schools should write their own rules." This remark brought the prompt rejoinder from Mr. Neverman, representing the National Federation, of "We're with you 100%!"

There was no opportunity given by the chairman to bring out the fact that the high schools have written their own rules and that the National Federation code is now used by fourteen states and about 8,000 high schools. Here in Connecticut, however, the majority of coaches appear to believe that the N.C.A.A. and the National Federation should get together and agree on a joint set of rules which would fit both the college and the high school game—a sort of basic code for colleges with modifications for the younger players. The Connecticut Interscholastic Athletic Conference, on the other hand, through its executive board, is unanimous in recommending that the Federation rules be given at least an experimental year's trial, and it is quite possible that many Connecticut schools will agree to use the Federation code next fall.

In basketball the state Conference will set up three distinct tournaments in March: one for Class A schools (500 or more boys); one for Class B schools (175 to 499 boys); and one for Class C-D schools (under 175 boys). Winners of the Class A and Class B tournaments will be given an opportunity to represent the state at the New England tournament at Burlington. The latter is sponsored and run by the New England Council of Secondary School Principals Associations, a group representing all New England high schools.

This new arrangement is stirring up unusual interest throughout the state.

HUBERT J. CANNON
Commercial H.S., New Haven

Texas

Death of 18-year rule

THE 18-year rule, which was supposed to go into effect in the Texas Interscholastic League Sept. 1, breathed its last when the ballots were counted in the recent referendum conducted among the 1,155 Texas high schools in the League. Ballots were returned by 1,065 schools, and the results showed a decided preference for proposition No. 3, which called

for a 19-year age limit and retention of the 8-semester rule, which is therefore to be the law. The preferential ballot had four choices: (1) 18-year age plus 8-semester rule; (2) 18-year age minus 8-semester rule; (3) 19-year age plus 8-semester rule; (4) 19-year age minus 8-semester rule.

The respondents marked their choices in the order of preference, and in tabulating the results the officials counted first preference as one point, second preference as two points, etc., with the proposition getting the least total winning. The following table shows the results on this basis, with proposition No. 3 winning with a score of 1,916:

Class or Conference	I	II	III	IV
A	244	197	171	247
B	995	851	606	919
C	201	194	113	191
Junior High Schools	117	110	81	142
Other High Schools	1371	1381	945	1573
Totals	2928	2733	1916	3072

The Texas High School Football Coaches Assn. fought the 18-year proposal from the very beginning, and feels that the co-operative efforts of the Association had much to do with the referendum's turning out as it did. All of which proves that when working together as they expect their teams to do, coaches can gain ends otherwise impossible.

Other proposed legislation

At the same time that the Executive Committee settled the age question, it passed a resolution to submit the following legislation for consideration at the next state meeting May 2:

1. A rule barring schools from participation in the League in any contest, the coach in which school is paid a percentage of gate receipts, or bonus in any other form. This, of course, is aimed primarily at football.

2. A rule requiring the State Committee to suspend any school in athletic contests whose accredited standing is withdrawn or cancelled by the state Department of Education for athletic irregularities of any kind.

Coaching School staff completed

The faculty for the fourth annual coaching school of the Texas High School Football Coaches Association has been completed. The school will be held in Dallas Aug. 3-8.

The complete faculty is as follows: Francis Schmidt, Ohio State, who will teach the short punt and single wingback formations; Bernie Moore (to be assisted by J. B. Whitworth, L.S.U. assistant) of Louisiana State, who will teach the double wingback formation; Raymond "Bear" Wolf, Texas Christian line coach, who will offer special classes in line play; and Matty Bell, Southern Methodist, who will deliver some special lectures on defensive planning and play.

Schmidt and Moore will be in charge of the all-star high school game to be played the last night of the school.

STANDARD LAMBERT,
Texas H.S. Coaches Assn.
Austin H.S.

[Continued on page 22]

A PROGRAM OF HEALTH INSTRUCTION, V

By W. G. Moorhead

Outline of school's course for promotion of safety, first aid, control of infection

This is the fifth of Mr. Moorhead's series of articles on a program of health instruction for the high school, based on the curriculum set up by the Division of Health and Physical Education of the Department of Public Instruction, State of Pennsylvania, of which Mr. Moorhead is the chief.

Safety education, care of the injured, and the control of infection

FIRST aid includes assistance which may be given as emergency treatment, and transportation of the sick or injured. Of almost equal importance are a recognition of the seriousness of the condition, and a knowledge of what or what not to do. It is a lack of this knowledge that is, in many instances, most serious. Injuries do happen in athletics and the coach is often the person upon whom the responsibility rests. To one not versed in first aid, the results may be serious. The Lloyd and Eastwood studies* of accidents in physical education reveal only too clearly the seriousness of many injuries which do not cause death, but result in crippling conditions which, in many instances, become permanent.

The following are of vital importance in all first aid and emergency treatment:

1. Ability to recognize the severity of the injury or the seriousness of the illness.
2. Possession of a considerable degree of judgment.
3. Never act blindly without a good and sufficient reason.
4. The nature, extent and severity of the injury should be determined in order to help the physician.
5. If the injury is apparently severe, consider carefully the matter of transportation before attempting it.
6. If you do not know what to do, do nothing at all.

SAFETY EDUCATION

In order to apply the lessons in Safety Education to immediate needs and situations, it is suggested that a minimum of two periods be devoted to this unit in September, one in December and one in the early spring.

I. HABITS OR SKILLS

Observes traffic signals and laws; enters and leaves trolley or bus in safe way; refrains from clinging to moving vehicles; refrains from hitchhiking; obeys regulations for pedestrians when walking on highways; swims, roller-skates or ice-skates only in safe places; does not touch poison ivy and unknown fruits; recognizes and avoids harmful snakes; is careful with use of matches; does

not crowd, push or trip others; refrains from playing practical jokes that may prove harmful; develops skill in handling the body with ease and quickness in unexpected situations (integrate with physical education); avoids injuring anyone when throwing snowballs, sticks, stones; is careful in the use of explosives or inflammable substances; refrains from sampling medicines that may be around the home; avoids running engine in the garage with the garage doors closed.

II. ATTITUDES

Is alert to risks in streets, in school and in the home; is considerate of the safety and protection of others; assumes responsibility in protecting self and others; is self-controlled in emergencies.

III. KNOWLEDGES

A. Safety hazards for the pupil enroute to school.

Carelessness in observance of official signs and traffic regulations; crossing of streets; safety zones; police or light signals; entering and leaving trolley; entering and leaving bus; traveling on bicycle, roller-skates, etc.; clinging to moving vehicles; hitchhiking; railroad and trolley crossings; playing with wires; poison ivy, eating unknown berries or other fruits; snakes.

B. Safety at school.

Study of safety hazards and means of preventing accidents at schools.

1. Fire hazards—stairways, accumulation of waste, matches, explosives.
2. In the building—crowding, pushing, tripping, pulling chair.
3. On the playground—throwing balls, sticks, stones; nails, broken glass.

C. Safety in the home.

Learn the most common causes of accidents in the home and means of prevention (care of injured studied later).

1. Falls—rickety supports, poor light, slippery footing, uncovered openings.
2. Burns—from electricity, fire, steam, powder or hot water.
3. Asphyxiation and suffocation.
4. Poisons—containers labelled, storage, spoiled foods.
5. Cuts—tools and tool box, and of pocket knife, axe, opening cans and jars, broken glass, nails.
6. Collision with inanimate objects.
7. Playing in the streets.

Suggested Activities

- I. Study history of travel and transportation in America, noting special hazards of each mode.
- II. Study of automobile fatalities in the United States; in Pennsylvania; note increase or decrease. Observe current newspaper reports. Discuss those which might have been prevented. Classify apparent causes.

III. Committees make studies of hazards to safety over several of the most widely used routes to school. Suggest ways of avoiding accidents.

IV. Organize School Safety Patrol for school children.

V. Organize School Safety Council to study problems during the year.

VI. Organize committee on School Safety to report problems to the Safety Council.

VII. Learn accident hazards in your building. Make list of where accidents have occurred. Discuss means of prevention.

VIII. Individuals prepare talks on accidents that have occurred in the home, telling how they might have been prevented.

IX. Study of local conditions to determine safe places for coasting, skating, and hiking. Plan school journey to obtain first hand information.

X. Secure cooperation of community authorities to have certain streets made available for coasting with safety.

XI. Pupil leaders prepare talks on fire hazards with Christmas trees. Give talks to lower grades.

XII. Study of safe practices in reference to Field Days, swimming, automobile trips, camping, Fourth of July.

CARE OF THE INJURED

I. HABITS OR SKILLS

Is able to give simple first aid treatment for the injuries listed under "Knowledges;" is able to make first aid carries; keeps cool in emergency; calls for services of physician, ambulance or other needed help in case of emergency; does not crowd about injured person if others are caring for him; has first aid kit or homemade substitute in home.

II. ATTITUDES

Is cool in an emergency; thinks of patient first and not of himself, thus helping to control his feelings at the sight of injury; is willing to help when needed in an emergency.

III. KNOWLEDGES

A. Purposes of first aid.

1. To save life.
2. To prevent injuries from becoming more serious, by application of skillful, prompt treatment until a physician or other help is available.

B. Common cases of injury call for

1. Quick recognition of the condition of the injured.
2. Knowledge of what should be done.
3. Skill in caring for injured until expert help is available.
4. Control of emotions—keeping cool.
5. Calling for the help needed—physician, ambulance, nurse.

C. The treatment of common injuries.

Learn to recognize the condition; practice the skills involved in treatment, including bandaging and first aid carries.

[Continued on page 20]

*Frank S. Lloyd: *Safety in Physical Education in Secondary Schools*, New York: National Bureau of Casualty and Surety Underwriters, 1932.

Floyd R. Eastwood: *Safety in College Physical Education*, New York University Ph.D. thesis, 1935.



THE 440 880 1 MILE

By
Archie Hahn



The start of last summer's "mile of the century" at Princeton, in which Lovelock, running effortlessly and with plenty to spare at the finish, defeated America's best milers. Left to right: Cunningham, Lovelock, Bonthron (who overtook Cunningham down the home stretch, Cunningham finishing third);

and Venzke. Two other starters, Mangan and Dawson, do not show in the picture. Cunningham was the only one to use the crouch start. Most milers don't use it, for they prefer saving the energy that is required to push off fast from the crouch. Cunningham, in this instance was particularly eager to get off fast

so as to obtain the pole before the first turn. He did. The picture on the right shows Johnny McHugh, the famous starter, about to send them off. In the background stands the referee of the meet, Harvard's director of athletics, Bill Bingham. In right background stands Ted Husing, broadcasting.

This is the second of a series of articles on track and field athletics by Archie Hahn, former Olympic champion and present coach at the University of Virginia. The first article, "Training Program for Sprinters," appeared in the February issue.

FIRST we will take up the two middle distance races—the 440 and 880, and then follow and conclude with the mile. The two-mile is omitted because it is fast disappearing from high school meets. For years it has not been on the recommended high school program in the official Track and Field Guide. The reason is apparent: there exists so much doubt as to the health value of the event for boys of high school age that the high school committee, to be on the safe side, does not sanction it.

The remarks I made in last month's article regarding medical examination for schoolboy runners apply here with equal force. The coach's first responsibility is to ascertain the physical soundness of the candidates. The coach should permit no boy to enter into training who has not passed a recent medical examination.

Toughest race?

Many track men regard the 440 as the toughest race on the program. There is no point in entering into a controversy in which there is so little real evidence one way or the other, but it is obvious that a race that is too long to be a sprint and too short to permit a runner to accept the pace of an opponent, is something in the nature of a special problem. Man is certainly getting faster on his feet, as witness the ever changing figures in our track records, but he is still far from the point where he can sprint 440 yards as he would 100 or 220.

The exact compromise between the sprint style and the distance style of running one must make who wants to achieve his best over the 440 route is

the final touch that only he himself can apply. Competition and experimentation under the coach's direction are invaluable aids to this fine polishing-off process.

For the purpose of association, the 440 stride may be thought of in relation to the sprint stride, and the 880 in relation to the distance stride. The 440 is a sprint with the pressure off. Off where? Well, if we must have it placed, let us say that it is off the toes. The leg action is less strained, the foot lands more on the ball of the foot, yet without sacrificing the good reach-out in front as the foot comes down. This is for the stride over the grind. Down the final 50 or 60 yards the 440 man becomes a sprinter as much as he can make himself so, and this will depend, of course, on how he manages himself up to that point. The slow but steady runner, with no great kick at the end, should carry a fast pace throughout the distance so that he will take the kick out of the good finisher. If you take one of these great finishers out fast enough, you will bring him down to your speed, unless, of course, he is a much superior runner.

440 and 880 Training

After a boy is in fair condition, three weeks of planned training (planned according to the needs of each individual) is the minimum that should be scheduled to prepare him for the first serious competition. Boys who specialize in running, and are free from the demands of football in the fall, will find fall practice and cross-country running (not necessarily in competition) a most valuable conditioner. During the winter months the training edge should not be allowed to dull through lack of activity. If a portable outdoor wooden track is not available during the season when the ground is unfit for running either

on the track or cross-country, the runner must find other means of retaining as much fitness as possible through indoor activity. Where winter sports are possible, these should not be passed up. They have endurance-building and health values not found to the same degree indoors.

The minimum three weeks' training period before the first meet should include daily workouts five or six times a week. Each day's workout should start with a warm-up and stretching exercises, the boys individually being responsible for these. After being warmed-up, each boy should practice starts for form, without gun and without competition. During the first week the work is confined to running form and starting form. Runs of 100 to 150 yards, starting in the middle of the straightaway and including the curve, should follow the special starting practice. These runs should be from the formal starting position, the crouch. The boys should run well within themselves during the first week, using maximum effort only in getting off their marks. After about three runs of 100 to 150 yards, with plenty of rest between times, they should be ready to call it a day. It has been just enough work so that they begin to feel a little tired but not in the least exhausted. Finish up with some body and arm exercises. Keep the body warm at all times, and if there is the slightest chill in the air, keep full training togs on during the running.

Introduce the longer distances during the second week, the boys running at three-quarters speed, and with pace observed accordingly. Under-distance work, for short stretches, may be started. This work, about which more is to follow, should continue throughout the season.

During the third week add more under-distance work to suit each boy's

CUNNINGHAM LOVELOCK

(Left)

Cunningham and Lovelock ending the second lap at Princeton, stride for stride. Lovelock's strategy was to keep on the heels of Cunningham, regardless of the pace, and then "go to town" on the bell lap. The Kansan hadn't the wherewithal to match the Lovelock outburst, and 70 yards from the tape resigned himself to defeat, soon to be overtaken by the fast-coming Bonthron. The pictures (from a moving picture film by Owen Reed) reveal the difference in body angle maintained by the two runners: Lovelock's more upright carriage tends to make for a more flat-footed landing. Cunningham, himself no toe digger, succeeds in landing well back on the ball of his foot by a straighter and more extended front leg. Both runners have achieved excellent relaxation. Cunningham's tendency to drop the right arm is a minor fault.

development. If there is a meet at the end of the third week, the boys who appear to be in good shape may be sent through a time trial on Wednesday or Thursday. It is advisable to postpone this until the fourth week, however, and have the first meet come at the end of the fourth week. Baton-passing may be introduced during the third week, by way of variety if nothing else; though some of the men will have practical need of it if they are members of relay units.

After the third week, the work may be arranged (always to suit each individual) somewhat along the following lines:

Monday—Warm-up and easy jog (Daily). A few starts 30 to 40 yards. The 440 men go over the route about eight seconds under best time, with top speed over final 40 yards. The 880 men should add about 20 to 25 seconds to their best time. Under-distance work for pace. Grass jogging and to the showers.

Tuesday—Over-distance run (about 660 yards) for the 440 men; three-fourths mile for the 880 men. About same pace as on Monday over regular route.

VENZKE EISS

(Right)

The anchor leg of one mile in the medley relay at the 1935 Penn Relays: Venzke of Penn leading Eiss of New York University. Venzke, one of the great milers of the day and this year a frequent winner over Cunningham in the Eastern indoor meets, is a model of mile running form. His weight distribution, subtly regulated by the position of the upper trunk, obtains a lightness in landing that is the hallmark of the stylist in distance running. The pictures also bring out, as in panel 4, the splendid drive off the rear leg which Venzke utilizes to the tip of his toe. The superb qualities that contribute to Venzke's preeminence are emphasized here in the contrast afforded by his less relaxed, more huddled opponent.



Wednesday—440 men run the regular route a little faster than they did on Monday, making it about five seconds slower than best speed. 880 men run the regular route about 5 to 10 seconds faster than Monday's.

Thursday—Under-distance work. First 300 yards of a 440; rest; then 220 yards of a 440. The 880 men run the first 660 yards according to schedule of pace over real route.

Friday—Light running or jogging around. Baton-passing practice. Easy starts. No practice Friday if a meet is scheduled the next day.

Saturday—Time trials or competition. If time trials, simulate game conditions fully.

The stop watch should be used on all under-distance work so that the runners may know how the pace they are attempting fits into their time schedules. Only by regularly checking performance against watch will a boy know exactly how he is coming along. His sense of timing and pace will later develop to the point where he will be able to tell within a second just what he has done over a particular stretch.

As weaknesses show up, the boys should undertake specific corrective measures. If endurance is lacking, over-distance work should be done. Under-distance work is for judging pace. Then the exact distance must be used once or twice a week in order to apply what has been practiced to its proper form. In the under-distance work, the boy should have set in his mind the part of the race he intends to run, and then run it accordingly. Under-distance work does not mean under-time or three-quarters speed work. If it is the first 220 of a 440 that a boy is working on, he should run it as he proposes to in the forthcoming meet. Of course he has to know what he is driving at. As a guide, he should set up for himself a time table. The following are some suggestions, based on the theory that the first half of a 440 should be faster than the second half. The first half should be

two to three seconds faster in the 440, two to four seconds in the 880. This is partly due to the necessity for running the first 50 to 100 yards at top speed in order to get position on the track before the first turn. Suggested time tables for 440:

220 yds.	300 yds.	440 yds.	Second	220
25	35	52		27
26	37	54		28
27	39	56		29
28	40	58		30
24	34	50		26
23	33	49		26

Suggested time tables for the 880:

440 yds.	660 yds.	880 yds.	2nd 440	Final 220
58	1:28	1:58	60	30
59	1:29	2:00	61	31
60	1:30	2:02	62	32
61	1:31	2:04	63	33
62	1:32	2:06	64	34
63	1:33	2:08	65	35
64	1:34	2:10	66	36

The extra two seconds in the second quarter, as shown in most instances above, are allocated in the final 220. This is the way it seems to work out in most races, as the runners slow down a little before gathering themselves for the final 70-yard drive to the finish.

Race tactics

Start fast in a strong attempt to get the pole. If the pole cannot be gained before the first turn, get in as close as possible, and try to pass the leaders on the back stretch if you think the pace is too slow. When passing a man, go by him fast, making him think you are stronger than you really are. He probably knows that he is far from being strong himself. Another advantage to passing a man fast is that it makes it forbidding for him to try to retain the pole, which he would have a much greater chance of retaining by a burst of speed of his own when he saw that you were coming up none too fast. Moreover, the rules require that you must be two strides ahead of the man whose path you cross. (N.C.A.A. rules. Other rules specify two yards, or one stride). It is therefore incumbent upon the runner



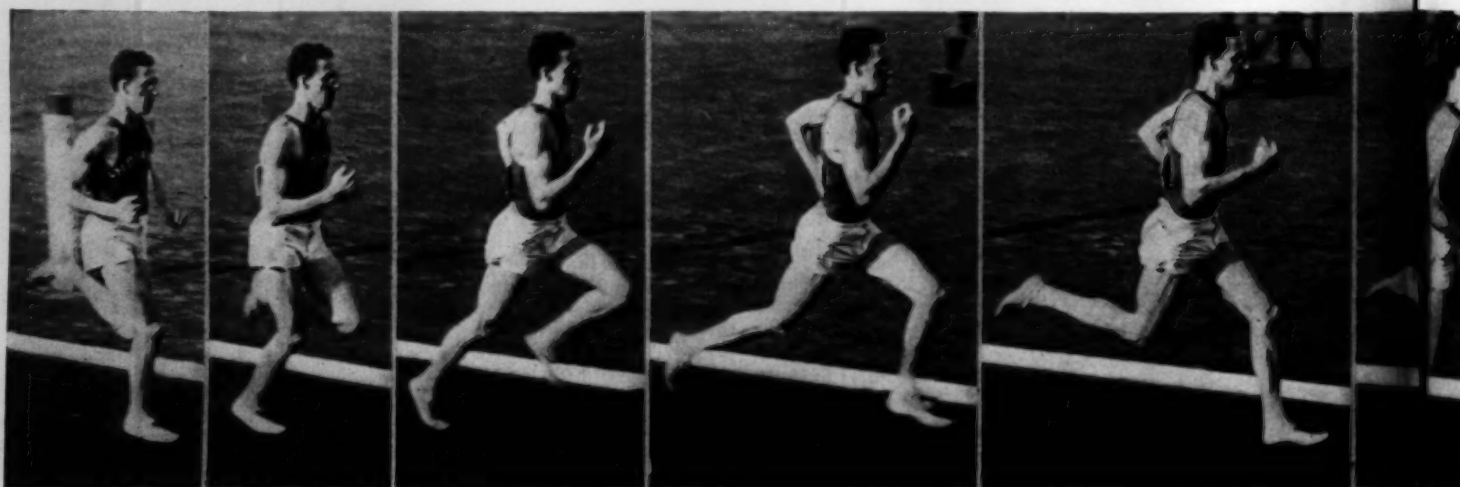
BONTHRON

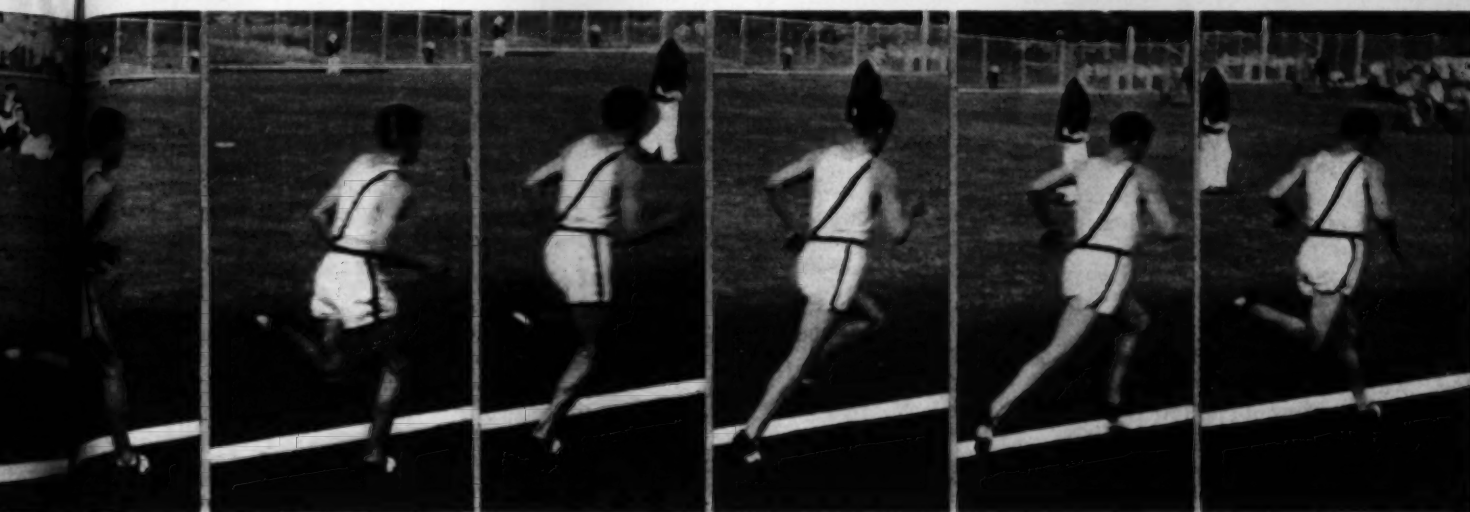
The former Princeton miler carrying along in place in the second lap of the Princeton mile. Bonthron remained about fifty yards behind Birmingham and Lovelock throughout the first three-quarters and seemed to have his usual good kick left at the end, but he made the mistake of not closing earlier in the race. At that, he overtook Cummings down the home stretch. Bonthron runs with a bound, a manifestation of peace of mind when relaxation and a healthy confidence can bring it. He lands softly, the foot settling well back and swinging forward again from the heel. The arms are at ease, in contrast to the tenseness with which a hostel (see cut below) holds his.

to assure himself of the minimum legal distance before cutting in.

The final straightaway is the place to put forth the supreme effort. Get higher on the toes, and swing the arms harder in an effort to get into the stride and action of the sprinter. Economy of movement must be observed, however, by strict adherence to efficient form. Good form is bound to be sacrificed somewhat, but the less that it is the greater the reward.

The inexperienced runner, and many of the experienced boys, will yield to the temptation to throw their well-established pace to the winds the minute a competitor breaks over the





traces. Perhaps it is necessary for every runner to go through the experience of victimizing himself thus. One can hardly be expected to "run his own race" in the complete sense, but he certainly should not fall for the obvious in the way of bad strategy.

The breathing should be done through the nose and mouth. Do not look around to see what the others are doing behind you. And if someone ahead of you looks around, take advantage of his curiosity by overtaking him in this lapse.

In a race where you are in a position next to the pace-maker, keep your eyes open for anyone coming up from behind to the outside, who thus, could box you in. Anticipate this at the first sign of it by moving out just a little, bringing your inside shoulder in line with middle of the pace-maker's back. This will probably discourage the man who had been intending to come up from behind, unless, of course, it is really his idea to pass you and the leader, in which case he will keep on coming, and ethically and legally you can do nothing about it except to step on it yourself.

The mile

The mile is, above everything else, a test of fitness. It is the king of foot-

racing events for high school boys, holding the distinction of being the longest race on the approved program of events.

The mile offers many more problems than do the shorter events, and for this reason it may be called, also, a test of track brains second to nothing on the program.

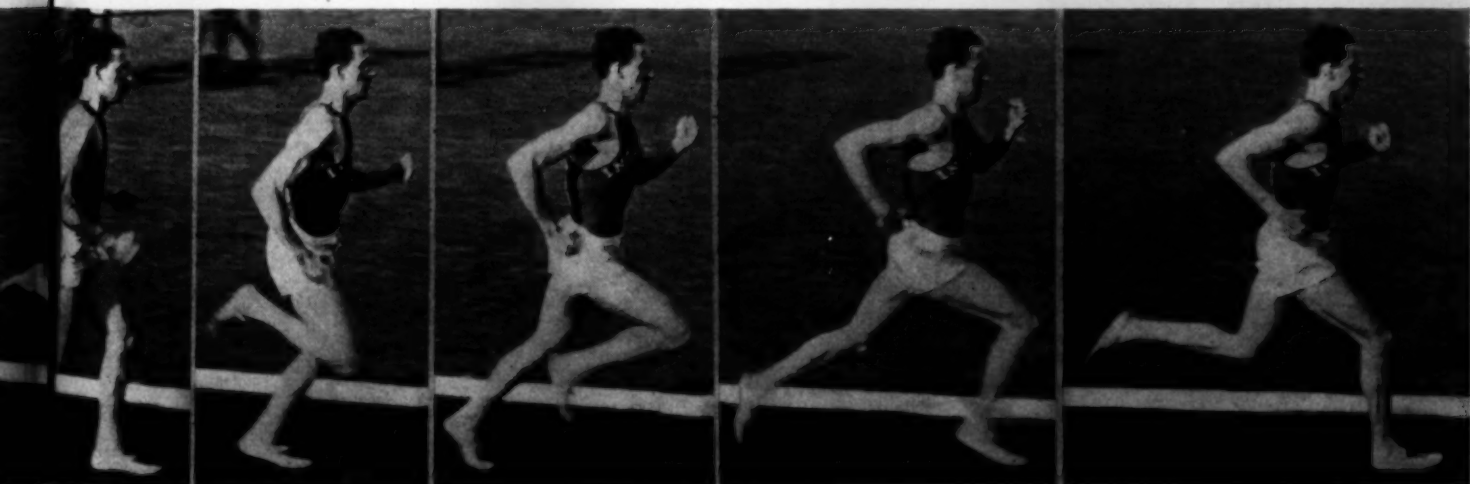
How are milers made, since I have made it clear that they are not born? They are made by everlastingly sticking at it, and never over-doing it. This latter is important, especially so for adolescent boys. If you want your milers to come up to the best of their potentialities, nurse them along slowly and put a check on them when they display tendencies toward running

their specialties for the edification of a group of classmates who happen to be watching the workout.

Nurmi is generally credited with having finally proved the efficacy of "smoothness" and "floating power" (sounds like a motor car blurb!) in distance running. The great Finn certainly had these qualities to a T. Built on a bedrock of stamina, Nurmi's style, which all milers and two-milers since have tried to achieve with varying degrees of success, rose to its empyrean heights on a structure of relaxation. The Flying Finn achieved this through a combination of techniques, including the grounding of the foot on the full ball of the foot with a subsequent rocker roll back to the heel,

HORNBOSTEL

The Indiana half-miler makes a decidedly flat-footed landing, employs a vigorous arm action and gives the general impression of consuming more energy than the occasion requires. Yet his stride is not as forced as it seems. Pronounced action of the arms gives the impression of effort and pressure, yet arm action is a minor factor in middle distance and long distance running. Pistons in sprinting, they serve no such purpose in the longer distances, except, of course, when the sprint is called for at the end. The best relaxation in the Hornbostel stride seems to come just as the foot is landing, a very opportune moment for loosening up.



and the consequent lilting bound off the ground during which he seemed to be at rest while in uninterrupted motion. If the poetry of the race was ever expressed in movement, it was by this effortless Finn.

Let us turn now to the more prosaic task at hand, that of planning the work for your potential Nurmis and Lovelocks (another smooth and easy-moving miler is Jack Lovelock of New Zealand).

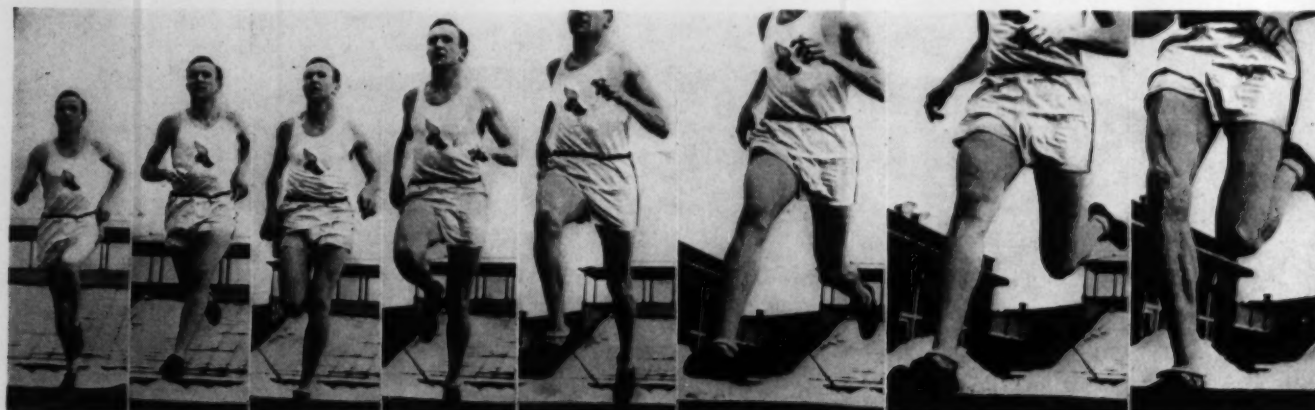
The three-weeks preliminary training, with the first scheduled race coming at the end of the fourth week, should include a first two weeks of daily jogging and walking around the track. An 880 jog, then a walk of about 10 to 15 minutes, employing a step in which the weight first falls on the full ball of the foot and then rocks and sits easily on the heel. Follow the walk with another 880 jog. A mile and then a mile and a half jog should be introduced during the early part of the third week, and during the latter part a one and three-fourths mile jog. The pace should be stepped up with each succeeding jog, until it becomes moderately fast. The fourth week, day by day (these are, like all others in this article, only suggestions which are intended only as a guide to be followed only so far as local conditions warrant):

Monday—Warm-up. (Daily.) Some starts. Most milers use the stand-up start. Run a mile about 30 seconds slower than best known time. Finish last 40 yards with a kick. Rest. Call it a day after five-minute jog on grass and stretching exercises.

Tuesday—Run three-quarters mile at mile gait (consult time table for in-

MANGAN

Joe Mangan, Cornell law student, who this winter has moved up into the fastest mile company in the U. S. "His form is just about what we like to see in a finished miler," says Archie Hahn, in commenting on the pictures below, "body at proper angle coming high off rear toes, forward knee well raised, easy, moderate float suggestive of Nurmi's, comfortable 'rocker' landing, with the full flatness occurring in line with the center of gravity as the body moves ahead of the grounded foot."



Nineteen Fastest Miles Ever Run

With Fractional Times by Quarters

TIME	RUNNER	DATE AND PLACE	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
*4:06.7	Cunningham	1934, Princeton	61.8	64.	61.8	59.1
*4:07.6	Lovelock	1933, Princeton	61.4	62.2	65.1	58.9
*4:08.4	Cunningham	1934, Madison Sq. Grd. ^a	62.6	64.8	61.2	59.8
4:08.7	Bonthron ¹	1933, Princeton	61.2	62.3	65.1	60.1
4:08.9	Bonthron	1934, Los Angeles	N.A.	At half mile 2:06.6	63.5	58.8
*4:09.2	Ladourmegue	1931, Paris	Fractional times not available			
4:09.8	Cunningham	1935, Madison Sq. Grd. ^a	59.	62.4	66.2	62.2
4:09.8	Cunningham	1933, Chicago	61.	65.8	63.	60.
*4:10	Venzke	1932, Madison Sq. Grd. ^a	61.2	65.2	64.2	59.4
4:10.2	Venzke	1936, Madison Sq. Grd. ^a	63.4	62.7	62.4	61.7
*4:10.4	Nurmi	1923, Stockholm	58.6	63.2	64.9	63.7
4:10.5	Cunningham	1934, Los Angeles	Second to Bonthron			
4:11	Cunningham	1935, Madison Sq. Grd. ^a	64.8	62.5	61.9	61.8
4:11	Mangan ²	1936, Madison Sq. Grd. ^a	66.6	61.8	62.4	60.2
4:11	Venzke	1936, Madison Sq. Grd. ^a	Second to Mangan			
4:11	Cunningham	1936, Madison Sq. Grd. ^a	Third to Mangan			
4:11.1	Cunningham	1932, Chicago	Fractional times not available			
4:11.2	Lovelock	1935, Princeton	65.1	60.8	63.2	62.1
4:11.7	Cunningham	1936, Madison Sq. Grd. ^a	Second to Venzke			

World's Records Two Decades Ago

*4:12.6	Norman Taber	1915, AAU champs.	58.	67.	68.	59.6
*4:14.4	John Paul Jones	1913, NCAA champs.	61.8	67.6	66.8	58.2

*World's record when made.

¹Finished 2d to Lovelock.

²Venzke, 2d, Cunningham, 3d, both less than a yard behind Mangan at tape.

^aIndoors. The Madison Sq. Garden track is 11 laps to the mile.

NA—Not Available.

Table composed by Homer Baker

dividual concerned). No finish to this three-quarters, as it is supposed to be the first three-quarters of the distance.

Wednesday—The full mile about 20 seconds slower than best time.

Thursday—Run one and one-half miles at steady pace, with kick in last 40 yards. The first mile should be about 30 to 40 seconds slower than best time, and this pace should be maintained over the extra 880, with allowance for kick at finish.

Friday—Easy workout. Under-distance work—once over the first 440. No workout if meet is scheduled for the next day.

Saturday—If no meet, time trials.

A suggestion for the under-distance work at three-quarters mile (Tuesday) is to run the first 880 at normal racing pace and the final 440 at the

pace used in the final 440 of a race, which means putting everything into the final 440 of the three-quarters mile workout. Another suggestion is to run, instead of the three-quarters mile in one stretch, three quarter-miles without about 15 minutes rest between the first and second and the second and third, running each a little faster than you would ordinarily run the first 440 of the mile. Or, instead of the full mile on Wednesday, substitute two 880's, observing a pace a little faster than would be used over the first 880 of the mile.

Mile time tables

A time table should be worked out for each day. The ones I suggest call for a second quarter four seconds slower than the first, a third quarter two seconds slower than the second, and a

fourth quarter four seconds faster than the third. This is for the ordinary miler, and is the customary tactics. Cunningham disregards them, as a champion is entitled to do, and runs his third quarter faster than most men, and frequently his second 880 is faster than his first. He has had to work out his own salvation, as most men will. But high school boys will require something set up for them by their coach, and I offer the following, based on the schedule my own 4:20 milers use, which I have included in the list:

1st Q.	2d Q.	3d Q.	4th Q.	Mile
72	76	78	74	5:00
75	79	81	77	5:12
70	74	76	72	4:52
68	72	74	70	4:44
66	70	72	68	4:36
62	66	68	64	4:20

New Book

INDIVIDUAL EXERCISES: Selected Exercises for Individual Conditions. By George T. Stafford and Harry B. DeCook. Pp. 111. New York: A. S. Barnes & Co. \$1.

THIS is a book written by three men who are in charge of the physical education departments of three universities. It was written with the idea of giving the reader basic information regarding exercise for individual needs. The reader, after consulting a physician, can select those exercises best suited to his or her individual requirements. The book may also be used as a guide for the physical educator in the selection of exercises for the physically incapacitated.

The book is divided into four sections: Part I is devoted to the need for exercise in present-day society. The authors point out that the aim of preventive physical education is to strengthen those parts which are weak or which may receive undue strain.

Parts II-III give a short description, and a series of graduated exercises; mild, moderate, and difficult; for each of the following ailments: blood pressure, constipation, digestive disturbances, foot disturbances, heart disturbances, hernia, poliomyelitis, kidney disturbances, knee disturbances, malnutrition, menstrual disturbances, posture, ptosis, neurasthenia, and scoliosis.

Part IV contains a personal health scoring chart. The individual can check his health habits against the chart in terms of "signs of health" and "health habits."

Part V contains a description (position and action) of each exercise (100) with "stick-men" illustrations.

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Program In Health Instruction

[Continued from page 13]

1. Injuries in which skin is not pierced or broken: bruises, strains, sprains, dislocations, fractures.
 2. Injuries in which the skin is pierced or broken: wounds and hemorrhage, nose bleed, internal or hidden hemorrhage, abdominal wounds, wounds in which foreign bodies remain.
 3. Injuries from heat, cold and electricity: burns (including burns from electricity), scalds, frostbite.
 4. Unconsciousness, partial and complete, caused by shock, electric shock, fainting, hemorrhage, alcoholism, apoplexy, brain injuries, sunstroke, heat exhaustion, freezing, suffocation.
 5. Poisoning.
 - a. Sources: herbs, shrubs, toadstools, drugs (These last should be destroyed by fire, not turned upon the dump for children to find).
 - b. Kinds: acids, alkalies, narcotics.
 6. Carrying the injured: fractures and sprains, hemorrhage, sunstroke and heat prostration, poisons, exhaustion.
 7. Injuries and emergencies of athletics and sports: gymnasium, baseball, football, celebrating Fourth of July, boating, skating, swimming, shooting, fishing, automobiling, camping and summer outings.
 8. Common emergencies for cramp, colic, diarrhea, constipation, nausea, vomiting, hic-cough, chill from exposure, nervous attacks, croup, neuralgia of face, toothache, earache, sties, prickly heat, chil-blains, corns.
- D. What a first aid kit should contain and how to use its contents.

Suggested Activities

- I. If school is in a community where an industry maintains a First Aid Staff, invite one of the members to lecture to the pupils, e. g., First Aid in Coal Mines.
- II. Boy Scouts assist in teaching pupils bandaging, first aid carries, etc.
- III. Groups of pupils give demonstration in assembly of skills learned in first aid.
- IV. Make a survey of first aid facilities that are available in the school. Recommendations may be made to principal of the needs.
- V. Pupils make pocket first aid kits.
- VI. Committee of boys and girls study how to care for injuries and emergencies that occur in athletics.

THE CONTROL OF INFECTION

I. HABITS OR SKILLS

Keeps skin clean; tries to keep skin free from abrasions; does not put fingers in mouth; washes hands after visiting the toilet and before eating; eats only clean food; is careful of the source of drinking water; uses only safe milk; does not eat spoiled food; avoids the use

of common towel or drinking cup; uses the drinking fountain in sanitary way; uses toilet facilities in sanitary manner; avoids insanitary toilet facilities; coughs or sneezes into handkerchief; does not expectorate (uses handkerchief); cooperates with parents in being immunized; observes isolation or quarantine measures; avoids contact with person who has communicable disease; uses proper precautions when in contact with communicable diseases; avoids crowds during an epidemic; helps to keep flies and mosquitoes out of house; has defective teeth properly cared for; endeavors to develop general bodily vigor as an aid to resistance to disease.

II. ATTITUDES

Regards it as a part of one's responsibility to protect others from infection; is willing to be immunized against communicable disease for which reliable means of immunization have been discovered; is interested in the protection of food, milk and water supply; desires to share responsibility of maintaining home and school in sanitary condition; enjoys being in good health rather than ill; appreciates the importance of protecting one's self and others from infection.

III. KNOWLEDGES

A. The story of the conquest of disease.

1. The prevalence of disease plagues.
2. The old superstitions and practices.
3. The invention and use of the microscope.
Story of Leeuwenhoek.
4. The germ theory of disease.
Contribution of Louis Pasteur.

B. Germs

1. Bacteria.

- a. Kinds
 - (1) Non-pathogenic — helpful in plant and animal life.
 - (2) Pathogenic bacteria.
 - (a) Characteristics
 - 11 Size
 - 21 Single celled
 - 31 Shape
 - a1 Cocci—spherical
 - b1 Bacilli—rod
 - c1 Spirilla
 - 41 Reproduction
 - a1 Subdividing
 - b1 Rapidity
 - c1 Conditions favorable for reproduction
 - 12 Heat, moisture, food
 - 22 Formation of spores when conditions not favorable
 - 51 Production of toxins
 - a1 Local — inflammation, pus, etc.
 - b1 Distributed through other parts of body through blood stream
 - (b) Diseases produced by pathogenic bacteria
Diphtheria, typhoid fever, tuberculosis, cholera, tetanus, pneumonia and meningitis.

2. Protozoa

- a. Resemble bacteria in that they cause disease.
- b. Depend on intermediary host to gain entrance to body,—insect or animal.
 - (1) Tsetse fly—sleeping sickness.
 - (2) Rat and squirrel fleas—bubonic plague.
 - (3) Mosquito—yellow fever.

C. How germs are transmitted.

1. By human beings

- a. Direct contact.
- b. Contact with articles used by in-

fecting person.

- c. Contact with body discharges of infected person.

2. By animals and insects.

- a. Animals having the disease transmit it to man—anthrax, intestinal parasites, glanders, bubonic plague.
- b. Act as intermediary host or mechanical carriers of germs. Flies, mosquitoes, lice, rats, squirrels, tsetse fly.

3. Through the air.

Exaggeration of the importance of dust as carrier of disease germs.

4. By means of droplets.

- a. Mucus, saliva from infected person.
- b. Dangers in crowds.
- c. Value of sunlight.
- d. Dangers of spitting, coughing, sneezing.

5. Through food or water.

D. How germs enter the body.

1. Through the skin.

Skin abrasions, scratches, etc.
The importance of cleanliness and use of disinfectant.

2. Through the mouth.

- a. Unclean hands.
- b. Infected food, milk, water.
- c. Breathing.
 - (1) Pneumonia.
 - (2) Colds.
 - (3) Tuberculosis.

3. Mucous membranes.

- a. By direct contact.
- b. By contact with infected towels, clothing, etc.

4. Adenoids and diseased tonsils.

- a. Relation to scarlet fever and diphtheria.
- b. Infection spread to other parts of body.
- c. Necessity for removal of diseased tonsils and adenoids.

5. Abscessed teeth.

- a. Infection spread to other parts of body.
- b. Necessity for proper care.

E. The action of germs in the body.

1. Process of getting nourishment and giving off waste.
2. Reproduce and die.
3. Chemical substances produced by germs harm body. Some give off toxin or poison while living, others when they die.
4. Damage to body.
 - a. Local
 - (1) Inflammation—indicated by redness, swelling, heat, pain.
 - (2) Pus—in boils and abscesses. Dangers of spreading.
 - b. Extension of infection—may follow channel of body—as from throat to ear.
 - c. Blood or lymph stream—carried to all parts of body.

F. The body's means of protection against infection.

1. Germicidal powers of saliva and nasal secretions.
2. Cilia in air tubes in lungs.
3. Hairs in nose.
4. Tears in eyes.
5. The work of the leucocytes.
6. The development of antibodies.
7. Natural immunity.
8. Acquired immunity through having disease.

G. Destruction of germs outside of the body; uses of

1. Sunlight.
2. Cold (some bacteria)
3. Wind (drives bacteria away)
4. Exposure to air.
5. Heat.
6. Chemicals.
7. Antiseptics and germicides.
8. Soap and water.
9. Modern methods of disinfection.
 - a. Sun, fresh air, soap and water versus fumigation.
 - b. State regulations in regard to disinfection in communicable disease.

H. Modern methods of controlling communicable disease.

1. Careful reporting.

2. Quarantine.
3. Isolation.
4. Artificial immunity.
 - a. Toxin-antitoxin.
 - b. Antitoxin.
 - c. Other serums and vaccines. Rabies, smallpox, typhoid and others.
5. Immunity tests.
 - a. The Schick.
 - b. The Dick.
6. Precautions during epidemics.
7. Importance of individual co-operation.
- I. Control of communicable diseases.
 1. Study of gains made in the following diseases and specific measures used:
 - a. Tuberculosis.
 - b. Pneumonia, influenza, colds.
 - c. Scarlet fever.
 - d. Diphtheria.
 - e. Smallpox.
 2. Discussion.
 - a. Relation of children's diseases to more serious sickness in later life, predisposition to morbidity.
 - b. Complications in children's diseases.
 - c. Fallacy—that children have to have them.
- J. Responsibility for helping in the control of infection.
 1. The individual's responsibility.
 2. The responsibility in the home.
 3. The responsibility of the school.
 4. The responsibility of the community.
 5. What the state does.

Suggested Activities

- I. Committee obtain statistics and present report of the status of certain communicable diseases over a period of five years. Discuss measures undertaken by community to control the diseases.
- II. Invite the school nurse to talk on some needed phase of communicable disease.
- III. Committee learn details of any recent communicable disease in the community—its origin, how it spread, what measures were taken to prevent the spread.
- IV. In the absence of a school nurse, discuss what the value of a school nurse would be to the community in helping to control communicable disease.
- V. Committees present brief reports on desirable practices in regard to the following as they affect the control of infection (1) the use and care of drinking fountains, (2) the use of towels in the shower room and lavatory, (3) methods of cleansing dishes in the school cafeteria.
- VI. Individuals prepare brief reports of the work of (1) Louis Pasteur, (2) Joseph Meister, (3) Edward Jenner, (4) Walter Reed, (5) Joseph Lister.

Going to the Olympics?

If you are considering a trip abroad this summer to take in the Olympic Games at Berlin, August 1-16, you may obtain information about the various sailings, special tours under the auspices of noted football coaches, and complete itineraries of the tours, by writing directly to the Olympic Travel Bureau which Scholastic Coach has set up for the convenience of its readers. Special Olympic all-expense tours cost from \$395 up, ranging in time from five to eight weeks, and offering a variety of itineraries including England, France, Switzerland, Belgium and Italy, before the opening of the Olympic Games on August 1. Address your inquiry to Scholastic Coach Olympic Travel Bureau, 250 E. 43rd street, New York, N. Y.

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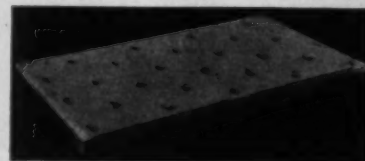
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From the States [Con. from page 12]

South Dakota

Seek full-time secretary

SOUTH DAKOTA is less fortunate than its sister states, Nebraska, Iowa and Minnesota, in that up to the present writing, the State Athletic Association has never felt able to employ an executive secretary. Only 313 schools make up the membership of the State Association, and the salary of a capable executive secretary would have to be financed, to a great extent, from some source other than through assessment of the member schools. Under the present set-up, the Association provides the Secretary, who is a member of the Board of Control, with \$75 a month allowed for office help. The State Board of Control has, for a number of years, endeavored to build up a reserve fund, with a full-time secretary as an ultimate objective. During the current school year there has been much more active interest in support of the plan for a full-time secretary, sentiment resulting from the feeling on the part of schools of a definite need for uniform rule-interpretation meetings in all parts of the state, and for better and more uniform officiating. The members of the Association are convinced that these goals can largely be realized by the work of an executive secretary.

With this in mind, the present State Board of Control has undertaken a change in the general management of its state tournaments. In the past, the Board has asked some school to guarantee all the expenses of the state tournament, and if a profit was realized, to divide the profit approximately fifty-fifty with the school sponsoring the tournament. The tournaments, even in the poorest years, have resulted in several hundred dollars profit, and the profits have been as much as four and five thousand dollars. This year, the Board of Control decided to employ a manager to handle each tournament (A and B), assume all responsibilities and take for the Association all profit above actual expenses. If the receipts at these tournaments are normal, a profit of three or four thousand dollars should be realized.

The Association is intensely interested in this outcome, because upon the financial success of these tournaments depends the ability of the Board of Control to employ a full-time secretary. South Dakota is anxious to commercialize its sports program as little as possible, but the Association feels that it is justified in its endeavor to obtain sufficient additional funds to enable it to place its program on a more constructive basis.

Another encouraging move on the part of the schools in the state, which will doubtless hasten the day when South Dakota activities will have the services of a full-time secretary, is the action of the Debate League, Declamatory League and State Music Association. The members of these various organizations instructed their executive committees to meet with the State Athletic Board of Control with a view to placing all their extra-curricular

activities of the high schools under one board, and employ an executive secretary. The representatives of these various committees met at Pierre, Feb. 13, to consider the reorganization of the governing Boards of these different activities. A report of the session will appear in this department next month.

Extent of membership

Membership in the South Dakota High School Athletic Association is purely voluntary, and any public high school may become a member if its board of education passes a resolution approving the rules and regulations of the Association and agrees to abide thereby. According to Article III, Section 1, only public high schools of the State of South Dakota, University High School, Eastern High School and three Indian schools are eligible for membership in our Association. There are 305 four-year accredited high schools in the state. Of these all but eight are members of the Association. In addition, there are eight three-year accredited high schools and one two-year accredited high school in the Association. While the Association offers little protection to a non-accredited school, we have five members from the 16 non-accredited high schools in the state. In other words, although a voluntary organization, our Association is serving practically every high school in the state that has interscholastic competition.

R. E. RAWLINS,
Secy.-Treas., South Dakota
H.S. Athletic Assn.
Pierre, S. D.

Missouri

Track award made official

A RECENT communication to the writer from Chauncey Simpson of M. U. gives official sanction of the Missouri staff to the previously mentioned All State Track Award.

The details of the plan announced in this column last month are that any high school boy in the state, in any dual, invitation, district or state meet who equals or beats the marks listed in this column last month will be awarded a sweater emblem bearing the title "All State High School Track Team, Missouri." The award will be mailed directly to the individual. Other regulations concerning the award are that the timing must be done by two stop watches, records must be certified by the coach and sent by him to C. G. Simpson, track coach, Univ. of Missouri. An individual may win only one award, yet may be entered on the team for several events.

Springfield tourney a success

The fifth annual mid-season invitation basketball tournament sponsored by the Senior High School, Springfield, was again a standout in a state where tournaments are by no means a novelty. The sixteen outstanding teams in South Missouri were invited. The Branson Pirates of the White River league carried off top honors for the second consecutive year; Elkland was runner-up; Clinton finished third and Eldon

fourth. Attendance and interest were at a new high.

Missouri high school coaches are invited to attend the track clinic to be held in the Field House of the University Saturday, March 7 at 1:30 o'clock. Athletic Director Don Faurot and Track Coach Chauncey Simpson have lined up the other Big Six coaches in a program that promises to be of real value to the coaches. Coach Shulte of Nebraska will talk on the high jump, broad jump and pole vault. Coach Bob Simpson of Iowa state will discuss the high and low hurdles. Coach Haylett of Kansas State will take up the 440, 880, mile and two mile. Coach Hargiss of Kansas will lead the discussion on the shot, discus and javelin. Coach Jacobs of Oklahoma will talk on sprints, and Coach Simpson will demonstrate baton passing and show motion pictures of the 1931 N.C.A.A. track and field meet.

The visiting coaches will also be welcomed to attend the spring football practice of the Missouri squad and the finals in all events of the championship Big Six indoor meet in the Field House that night.

St. Louis Assn. officers

The St. Louis County Coaches Assn. has elected C. A. Roberts of Webster Groves, president; W. J. Klemm, Christian Brothers, vice-president, and Karl Long, Clayton, secy.-treas., for this year. The St. Louis County Assn. is one of the largest and most active districts of the Missouri High School Coaches Assn.

Iowa considers coaches assn.

Our neighboring state of Iowa is moving toward the formation of a coaches association. Judge Grimsley, athletic director at Mason City, Iowa, recently asked the writer to send him the program of this organization, the details of its formation and any general information that would help them in forming such an organization in that state.

Maplewood Relays

In answer to our query as to what was to be expected of the Maplewood Relays this year, Armin Wahlbrink, director of this event which is the largest of its kind in the Midwest, responded with the following glowing notice:

"Wintry weather may not bring thoughts of sun-warmed cinder paths, but it is having little effect on big plans already under way for the Seventh Annual Maplewood Relays. April 11 is the date, with preliminaries scheduled April 10. This being Olympic year, there is an increased interest in track and field activities. Recognizing this fact, plans are under way to make the Relays a banner meet both in quantity and quality. The Relays are sponsored by the Maplewood High School at Maplewood, Missouri, a suburb of St. Louis.

"It might be interesting to recall some of the history of the Relays. At first, in 1929, they attracted only local attention. Today the best high school athletes of the Mid-west look forward to the event. Before 1930 the interest in track and field competition drew no more than a polite yawn from the general public and athletes in St. Louis. This was due partly to the long drawn-out meets and the long waits between each event. Another objection was that only one or two boys could compete in each event. The public likes action. The ordinary track meet lacks action. The Relays were the answer, providing more races, and consequently more boys competed. To encourage more boys to come out for track in our own schools and to stimulate track in St. Louis County was the main purpose of the first Maplewood Relays. Seven schools participated.

"Encouraged by the success of the first meet we decided to make it an annual affair. At the

second annual Maplewood Relays, 14 schools of the St. Louis district participated, and it seemed that interest in track was on the upgrade. After the second Relays, many letters were received from outside schools voicing their approval of this type of meet and suggesting that it be not limited to the St. Louis district. With this in mind, permission was sought and granted by both Mr. Carl Burris, secretary of the Missouri State Athletic Assn., and Mr. C. W. Whitten, secretary of the National Federation.

"Consequently, the third and fourth-year competition was keener, because schools from Missouri and surrounding states were entered, and several of the leading Chicago high school teams came in. With 28 schools participating the third year and 56 schools the fourth year, track enthusiasts began to sit up and take notice of the calibre of the Relays and the excellent marks made in each event. The fourth Maplewood Relays drew 778 athletes from Missouri, Illinois, Iowa, Oklahoma, and Kentucky. Both years a heavy rain fell, dampening the surroundings but not the enthusiasm of the spectators. The stadium was filled, and the majority of the on-lookers stayed until the last race had been run.

"Not to be discouraged because of adverse weather conditions of the two previous years, we went right on planning for better meets. The fifth and sixth Relays proved to be the best and most colorful track carnivals even seen in this section of the country. The ideal weather helped the performers to break many records.

"The Maplewood Relays have grown to a commanding position as America's only national outdoor track meet for high school athletes exclusively. Mr. Whitten, who acted as the honorary referee for the fifth Relays, was well pleased with the meet. In talking to a reporter afterwards, he said that he termed the Maplewood Relays one of the finest high school track events in the country. He was particularly pleased with the efficiency with which the meet had been run off, and the up-to-the-minute facilities at Maplewood High School. We have a quarter-mile track 25 feet wide, with a 150 yard straightaway 25 feet wide.

"It has also been our belief that a meet is as good as the officials. With this thought in our minds, we have always had the best officials possible.

"Records have been constantly bettered with each Relay until now we have some very good marks for athletes to strive for. The following are the events and records to date:

120-yd. high hurdles, Schoenbeck, Roosevelt H.S., St. Louis. 15.8 sec. (1935).
200-yd. low hurdles, Evans, Elsberry, Mo. 23.5 sec. (1935).
100-yd. dash, McClure, University City, Mo. 10 sec. (1932).

Packard, Rockford, Ill. 10 sec. (1935).
220-yd. dash, Owens, Maplewood, Mo. 22.2 sec. (1931).

440-yd. dash, Gallauer, Granite City, Ill. 50.7 sec. (1935).

880-yd. run, Green, Ben Blewett, St. Louis, Mo. 2 min. 6.8 sec. (1935).

440-yd. relay, University City, Mo. 44.4 sec. (1934).

"The seventh annual Maplewood Relays will be held at the Maplewood Stadium, April 10th and 11th. This meet has the approval of the Missouri State High School Association and of the National Federation. The rules of the National Federation will prevail. High schools will compete in one class only. Schools outside of Missouri must obtain permission from their respective state organizations to enter. This is an open meet. Any high school in good standing is welcome.

"Points will be scored for first four places in the individual events, scoring 5, 3, 2, 1 respectively. In the relay events four places will also count, scoring 10, 6, 4, and 2 respectively.

"A team trophy will be given to the school winning the meet. A traveling trophy will be given to the school scoring the most points in the individual events, and another trophy will be given to the school winning the most points in the relay events. Gold, silver, and bronze medals will be given for the first three places in all events.

"Any school wishing to enter should write Armin A. Wahlbrink, director of the Relays, Maplewood, Missouri."

C. E. POTTER,
Missouri H.S. Coaches Assn.
St. James, Mo.

A. P. E. A. Conventions

The annual convention of the American Physical Education Association will be held in St. Louis, April 15-18. District association conventions are scheduled as follows: Eastern District, Syracuse, N. Y., March 25-28; Southern District, Knoxville, Tenn., March 11-14; Midwest District, Grand Rapids, Mich., March 18-21; Southwest District, Long Beach, Calif., April 2-4.

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Over the Field

This department is conducted by Hyman Krakower, Ph.D., a member of the staff of the Department of Hygiene, College of the City of New York.

Swimming books, selected

The swimming books listed below do not include those published prior to 1920.

American Red Cross, Washington, D. C., Publications. Free.

Among the valuable pamphlets distributed by this organization are:

Life Saving Methods

Life Saving Service

Swimming for Health, Safety, and Fun

Barnes, Gerald. *Swimming and Diving*. New York: Chas. Scribner's Sons, 1930. Pp. 140. \$1.75.

Simple illustrated explanations on how to swim, the different strokes, life-saving, and diving. Contains score sheets for swimming meets.

Brewster, G. B. *My Channel-Swimming Adventures*. London: John Bale, Sons and Danielsson, Ltd., 1935. Pp. 71.

The author describes the experiences he encountered in his channel swim, and gives advice for those desirous of duplicating the accomplishment.

Brownell, Mary A. *Swimming Pageants*. New York: A. S. Barnes and Co., 1926. Each 75c. Set \$2.50.

A set of four illustrated swimming

pageants for indoor and outdoor production.

Collins, Gilbert. *The New Magic of Swimming*. London: William Heinemann, Ltd., 1934. Pp. 184. (Ryerson Press \$1.75.)

A manual of modern swimming with an attempt to evoke into the picture the "psychology" of perfect swimming. The book is illustrated with pictures of champions.

Corsan, George H. *The Diving and Swimming Book*. New York: A. S. Barnes and Co., 1924. Pp. 162. \$3.00.

A book explaining rather well the fundamentals of swimming, the teaching of men, women, and children. Also included are sections on life-saving, stunts, water sports, and exhibition swimming.

Cureton, Thomas K. *How to Teach Swimming and Diving*. (Volume I) New York: Association Press 1934. Pp. 238. \$3.

The first volume of a trilogy by the country's outstanding authority in the field of athletic research. As swimming coach of the Springfield College team, Cureton has the practical experience of the coach to contribute to his studies of the basic laws of physical movement. This text covers the historical, physical and practical phases of swimming and modern swimming-pool management. A comparison is made of the best known methods of teaching beginners. The work is sound, thorough, pointed and interestingly written. Despite its allegiance to documentary fact, it is not dry reading. The second two volumes have not yet been published. They are said to contain the long-awaited mate-

rial on the coaching of competitive swimmers and divers.

Cureton, Thomas K. *Recreational Swimming Activities*. Springfield Y.M.C.A. College, 1930. \$1.

A mimeographed compilation of individual stunts, team games, mass games, pageants, and water plays. An excellent guide for camps, schools, and other recreational swimming centers.

Dalton, Frank E. *Swimming Scientifically Taught*. New York: Funk and Wagnalls Co. 1931. Pp. 241. \$1.75.

An eighth edition of the work on the Dalton method of teaching swimming. Was first published in 1912.

Daviess, Grace B. *Swimming*. Philadelphia: Lea and Febiger, 1932. Pp. 173. \$2.25.

A section is devoted to an analysis of the form for the standard competitive dives. This practical book was written for the teacher of swimming and those interested in perfecting their strokes as well as for those interested in swimming for health reasons.

Goss, Gertrude. *Swimming Analyzed*. New York: A. S. Barnes and Co., 1935. Pp. 116. \$2.

The teaching of swimming enlivened through the use of water games and sports. All levels of swimmers are considered. Sections are devoted to care and sanitation of swimming pools, and athlete's foot.

Handley, Louis De B. *Swimming and Watermanship*. New York: Macmillan Co., 1922. Pp. 150. \$1.

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A small all-round book by the noted international authority, describing the various swimming strokes, life-saving, diving, and water games.

Handley, L. and Howcroft, W. J. *Crawl-stroke Swimming*. London: E. J. Larby, Ltd., 1929. Pp. 86. 2s 6d.

A small instruction volume devoted entirely to the crawl and the back-crawl strokes.

Hedges, Sidney G. *Book of Swimming and Diving*. London: Hutchinson and Co., 1927. Pp. 190. 2s 6d.

Of the many books on swimming written by this author, this is one of his best and most detailed, but not quite the equal of some of the American books. Starting with the "confidence" drill, the author takes one through the entire swimming and diving program. Games and tests are included.

Hedges, Sidney G. *Modern Swimming and Diving*. London: Athletic Publications Ltd., Link House, 1929. Pp. 134. 2s 6d.

Explains the fundamentals of the crawl, overarm, and trudgeon strokes, as well as the elements of diving, all of which is outlined as a basis of a twelve-week program, swimming six days a week.

Hedges, Sidney G. *Swimming, Diving and Life-Saving*. London: Frederick Warne and Co., Ltd., 1928. Pp. 64.

General hints on aquatic activities. The strokes are very briefly described.

Kellogg Sports Library. *Swimming and Diving*. Battle Creek, Michigan: Free.

A handbook for boys and girls, yours for the asking, on swimming, the various strokes, diving, life-saving, and water polo.

McCormick, Olive. *Water Pageants*. New York: A. S. Barnes and Co., 1933. Pp. 138. \$2.

How to stage a water pageant; also descriptions of games and stunts suitable for water carnivals. The author explains the organization and selection of pageants, costuming, music and settings. For those desiring to write their own water carnivals, a basic outline and suggested subjects are given.

Mills, Fred. *Swimming and Water Safety*. New York: Boy Scouts of America, 1931. 60c.

One of a series of valuable handbooks published by the Boy Scouts. It treats primarily of watermanship in relation to camping.

Riggin, Aileen. *Modern Swimming and Diving*. New York: Dodd, Mead and Co., 1931. Pp. 219. \$1.75.

An Olympic champion makes a contribution to swimming literature. A book written for the novice and the expert. As an expert in diving, the author covers thoroughly the procedures to be followed. Form is stressed throughout the text.

Sheffield, Lyba and Sheffield, Nita. *Swimming Simplified*. New York: A. S. Barnes and Co., 1927. Pp. 297. \$2.

An excellent guide in teaching the various swimming strokes, dives, and life-saving methods. Educational procedures and principles in teaching swimming are discussed.

Smith, Ann A. *Swimming and Plain Diving*. New York: Chas. Scribner's Sons, 1930. Pp. 239. \$2.

Intended to serve all persons interested in swimming and to be used by the swimmer, and in the classroom as a text.

Spalding's Athletic Library. New York: American Sports Publishing Co.

A valuable series of handbooks for the swimming aspirant and the coach.

Amateur Athletic Union Rules for Swimming, Diving, and Water Polo. (Annual.) 25c.

Official A.A.U. rules and Olympic diving tables.

91R—*Intercollegiate and Interscholastic Swimming Guide. Official Rules for Swimming, Diving, and Water Polo*. (Annual.) 25c.

Containing the official intercollegiate and interscholastic rules and records.

106R—*The Science of Swimming*. By Frank J. Sullivan, 1935. 25c.

The various strokes in swimming, elementary and fancy diving, and life-saving methods are explained. A section is devoted to the official rules for form swimming.

107R—*Swimming for Women*. By L. de B. Handley, 1931. 25c.

A handbook of instruction in competitive swimming, fancy diving and life saving.

125R—*Watersports. Official Rules for Swimming and Diving*. Edited by the Women's Athletic Section of the American Physical Education Association. Annual. 25c.

Vonbrock, Ernest A. *Swimming and Diving Made Easy*. St. Louis: Aquatic Sports Publishing Co. 1935. Pp. 34. 50c.

Tips on swimming and diving. The formal dives for competition are illustrated by line drawings, showing six or seven dives in successive stages.

Weissmuller, J. and Bush, C. A. *Swimming the American Crawl*. New York: Houghton Mifflin Co., 1930. Pp. 190. \$2.50.

The ace of swimmers explains in story form his use of the crawl stroke, the diet to be followed, and the principles of breath control.

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THE BACK CRAWL STROKE

By Albert W. Gray

**Perplexing question of the bent elbow.
Some comments on Adolph Kiefer's style**

Mr. Gray's article "Variations in the Crawl Stroke" appeared in last month's issue. The author is coach of swimming at New Haven, Conn., High School.

SURPRISES in backstroke performance have been coming thick and fast in recent years. Records in scholastic, collegiate, and open competition have fallen one after another. We have read many times over the names of such outstanding backstroke swimmers as Adolph Kiefer, Albert Vande Weghe, Danny Zehr, Eleanor Holm Jarrett, the Kompa sisters and others. But the first real surprise came back in 1932 when the Japanese made a clean sweep of the backstroke event by taking the first three places, with Kiyokawa swimming the 100 meters in 1 min. 8.6 sec.

In 1932 Danny Zehr was the best backstroke swimmer America could offer and he was able to take only a fourth place against the gentlemen of Japan. The next year Albert Vande Weghe, a Paterson, N. J., high school boy, broke into the limelight when he conquered all of Japan's best backstroke swimmers. Last August at the Meiji Jingu Bath in Tokyo, the U. S. could boast at least three superior backstrokers—Drysdale, Branch, and Zehr. Zehr and Drysdale both swam in hard luck, each disqualifying himself in one event. Zehr disqualified himself in the 100-meter backstroke and Drysdale in the 200-meter event. Had Drysdale not disqualified himself he could have claimed a record at 200 meters, having done 2:35.2. Instead the record went to Yoshida of Japan who made the distance in 2:35.6.

Kiefer's technique

While swimming enthusiasts recognize the ability of these outstanding U. S. backstroke swimmers, most at-

tention today is focused on young Adolph Kiefer of Roosevelt High School, Chicago, who has broken one record after another in every distance from 100 yards to 1500 meters.

Kiefer has found ways of performing the different functions of the back crawl that bear some study here.

The start used by Kiefer is one in which he leaps above the surface of the water at the starting signal. Both arms swing together, straight overhead, as he flies out rapidly over the water to gain momentum before actually starting the stroke.

Kiefer's arm motion is perhaps the most discussed phase of his swimming. The catch or entry is made with the arm forming an angle of 135 to 140 degrees with the body. His wrists are bent slightly so that the palm of the hand is perpendicular to the line of travel and the direction of the force. The depth of the pull is not more than six to eight inches at its lowest point in the travel from the entry to the end of the stroke. Complete flexibility of the arms and legs seems to be one of the secrets of his success. Every muscle in his body is held loosely and under perfect control.

The turn which Kiefer uses is quite distinctive and effective. As he touches the end of the course his body tucks up, his head is thrown back as his feet and legs come above the surface, and he spins around as though pivoted on his shoulders or the back of his neck. His feet coming out of the water give him the appearance of having performed a somersault. It is, however, only part somersault and part spin. As it takes place under the surface of the water it is apt to be misunderstood by some who watch him swim.

It is the claim of some swimming teachers that the backstroke is the

very best stroke to use for all-round swimming because there is no pressure on the heart and lungs as in other strokes where the swimmer is on his stomach. Others claim that because the face is clear of the water for normal breathing that it is the best stroke. The first claim might be true to a certain extent, but the second is certainly not true of all competitive backstroke swimmers. Slow motion moving pictures show that water washes over the face most of the time.

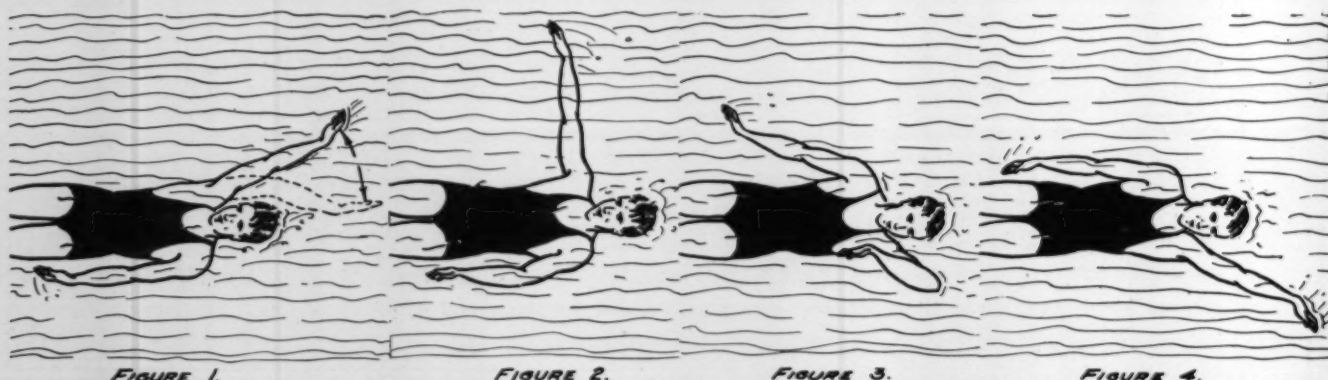
For the purpose of considering all phases of the backstroke, let us discuss them as they occur in actual competition.

The Start

The official rules require that the competitors line up in the water with the hands resting on the edge of the pool. A study of the different swimmers will reveal many different types of start. At the lineup, all backstroke swimmers grasp the scum-gutter, starting box, or edge of the pool and tuck up tightly to be ready for a vigorous push-off at the signal. The position while waiting for the starting signal is important. Some prefer to pull themselves above the water while others stay below the surface. For the most efficient start the swimmer should tuck his body in as tight a position as is comfortable for him, place both feet firmly on the wall and be ready for the push-off with as little tenseness as possible.

The push-off is executed in various ways. Some push off under water with both hands held at the sides while others push off with one or both hands thrust over the head. The push-off which has proven most effective for my swimmers is the one where both arms are thrust or swung overhead as

One half of a backstroke cycle. See text for comment on minor variations in stroke



the swimmer leaps up and out over the surface of the water.

The length of time that a backstroke swimmer should glide after his start before starting to stroke is governed by the momentum he is able to establish and the distance he must swim. In any event, the stroke should be started before the body has lost any appreciable amount of its momentum.

The Stroke

The first stroke after the push-off may be started with one or with both arms, as the swimmer prefers. Preference should be determined by the coach through careful observation. It has been my experience that a simultaneous pull with both arms before starting the regular alternate over-arm motion will increase the momentum of the body sufficiently to justify its use. After a satisfactory glide has been made, the swimmer pulls hard with both arms, the pull continuing through to the hips. Next, he makes an exceptionally rapid recovery with one arm and continues into the regular rhythm of the alternate over-arm stroke.

Figures 1, 2, 3, and 4 show a top view of the continuous movement of one-half of a back stroke cycle. Few swimmers are now using a stroke where the arms continue to be separated at an angle of 180 degrees throughout the cycle. In the majority of cases the arms work in independent coordination. The swimmer shown in the accompanying drawings has separated his arms at nearly 180 degrees (Figure 1). Figure 2 shows the right arm half way through the pull as the left is just leaving the water, while Figure 3 shows the right arm about to complete the pull as the left is a little more than half way through the recovery.

The arm in its pull pivots from the shoulder and sweeps, in an arc, downward to the hip. If the arm is entered at a position directly overhead, there is little force applied parallel to the path of motion from that position until it reaches the position shown by the solid line in Figure 1. The theory is that no value is obtained while the arm is pulling through this first 30 to 35 degrees of the arc.

As has been mentioned before, Kiefer uses a type of arm motion where the catch is made a little to the side rather than directly overhead. It seems to be advisable also to keep the palm of the hand perpendicular to the path of motion throughout the pull. If the pull is carried to a depth of greater than ten inches, there is a decided tendency to pull the body under water. All force should be exerted so as to carry the body through the water in a straight line with no bobbing up and down.

The extent to which the elbow bends in the pull through the water varies. Mechanically, greater leverage is obtained when the hand is at its greatest distance from the shoulder. Thus, a straight-arm pull should generate greater power than a bent-arm pull. However, the arm is not naturally a rigid lever, and it can only be made one when it is held so, and to hold it so, during the course of a movement against the pressure of water, such as in this stroke, tends to mitigate against the

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flexibility and quickness of movement which backstroke swimmers find of primary importance. Hence, the degree to which the arm is bent at the elbow on the pull through the water depends on the swimmer's own experience in his experimentation with it. Al Vande Weghe appears to use a straighter arm-pull than Kiefer. Vande Weghe's pull looks to be perfectly straight until near the end of the stroke, where a decided break seems to occur as the wrist and hand exert a final push.

At the completion of the pull, the recovery is started by turning the hand from the palm inward position to the palm outward position (Figure 2). This motion is a sort of twist of the forearm and a slight roll of the shoulder and a simultaneous bend of the elbow. The elbow moves forward as the hand is removed from the water. When the elbow reaches its farthest-most forward position (Figure 3), the forearm swings to the fully extended position shown in Figure 4. This is a type of recovery requiring complete relaxation of the arm and thereby affording a rest period for the muscles which were working throughout the pull. However, the straight-arm recovery is favored by many good backstroke swimmers, especially over the shorter distances. Those who favor the straight-arm recovery claim that it eliminates the motion of bending and then unbending the elbow. Those who prefer the more relaxed bent-arm recovery claim that it provides for a momentary relief of the tension of keeping the arm straight.



FIGURE 5.

The flutter kick used in the back crawl stroke is as important and requires as much attention as the flutter kick in the regular crawl stroke. Here again complete relaxation is necessary if the full effect is to be gained. Figure 5 represents a normal flutter kick used in the back stroke. On the down beat the toes should be extended down and out so as to provide the maximum bottom-of-the-foot surface for the stroke against the water. At the low point of the down beat, the greatest relaxation enters as toes are brought in slightly, and held more upright for the return beat. The down beat, of course, is the major source of power.

Body Position

Last but by no means the least in importance in our discussion of the back stroke is the body position. At no time should the hips be allowed to drag. Keep the body on a level plane at all times. If the head is held forward, the hips will sink and the entire surface of the back will be presented as a resisting plane to the water.

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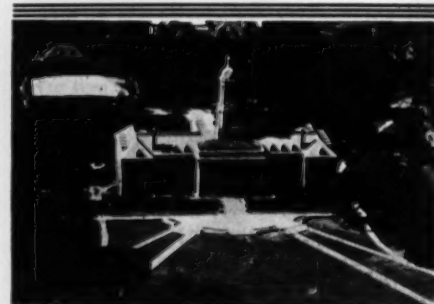
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N.C.A.A. Football Rules Changes

THE ambiguous Supplemental Note to Rule 7, Section 7, of the National Collegiate A.A. football rules, popularly known as the "slow whistle" rule, was removed from the code for 1936 by the N.C.A.A. Football Rules Committee at its annual meeting last month at Palm Springs, Calif.

Another significant change will allow blocked kicks which do not pass the line of scrimmage to be recovered and advanced by either side. Heretofore, the kicking team was not allowed to run with a recovered blocked kick. This change will make another point of difference between the N.C.A.A. rules and the National Federation rules, unless the high school body now adopts the change in view of the N.C.A.A. action. (See the February Scholastic Coach for report on 1936 Federation rules.)

In an effort to simplify the task of the officials in determining illegal screening on the part of players of the forward-passing team, the N.C.A.A. rules will forbid players not eligible to receive the pass to be in advance of the point where the pass is caught, intercepted or falls to the ground. This is intended to further strengthen the already emphatic forward-pass screening rule (Rule 7, Sec. 5, Art. 4); but, emphatic as it is, it has not served to deter coaches from sending "screeners" down to interfere with the defensive man attempting to cover the pass receiver.

No other significant changes were made in the N.C.A.A. rules. Agitation to have the goal posts placed on the goal lines, and to make some of the other much-publicized changes, failed.

Percy Beard Retires

Percy Beard, world's record holder in the 120-yards high hurdles, has announced his retirement from competition. He is a mathematics instructor at Alabama Polytechnical Institute.

Meanwell Out at Wisconsin

Dr. Walter E. Meanwell, who gained national renown as basketball coach at the Univ. of Wisconsin from 1914 to 1934 and became athletic director there two years ago, was dismissed along with Dr. Clarence W. Spears, football coach, and William Fallon, trainer, in action taken last month by the Wisconsin regents as a result of irregularities and discord in the management of Wisconsin athletics. The regents in firing all parties in the feud, overrode the recommendation of the athletic board that Meanwell be retained and Spears fired.

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Baseball

[Continued from page 9]

the pitcher must be certain that the runner is not moving toward second base, or has not assumed too great a lead. If he moves toward second base, even a little half-step, and the pitcher throws to the baseman instantly, the fastest runner in the world can't save himself. If he is already moving back towards the base, the throw is usually wasted. ¶A change of pace in respect to the length of time the pitcher stands motionless on the rubber tends to throw the runner and batter off stride. A change of pace in regard to throwing to the baseman cuts down the lead the runner is likely to take. He worries about a fast throw, after several slow throws, having no idea how fast the pitcher really can send him back.

Fly balls. One player in the outfield and one in the infield should call fly balls. ¶A pitcher has no business catching a fly ball which an infielder might have reached. Get your pitcher out of the way; the mound offers enough hazard to the infielder moving for the catch. ¶Outfielders should, if they are not signaled, watch every pitch carefully. Outside balls are generally hit away from the side of the plate occupied by the batter, and vice versa.

Miscellaneous. High pitches are very difficult to bunt. Pitch high when the squeeze is on and your pitcher will catch a lot of pop flies—often doubling the runner. ¶A catcher sensing the hit-and-run should call for inside pitches to a right hand batter; thus the batter has trouble in hitting "behind" the runner. ¶Never allow your catcher to sign for a change of pace pitch to a weak hitter. ¶If your team is unable to throw runners out at second while holding the runner on third, it has a fatal weakness. Smart runners will double steal your underwear. ¶Only a stupid catcher allows a pitcher to throw while an infielder is temporarily out of position. ¶A baseman who attempts to tag a runner knee-to-knee is going to have trouble getting his shoes on in later life. The tag should be from the side. A skillful baseman gives slightly with the slide. ¶Backing

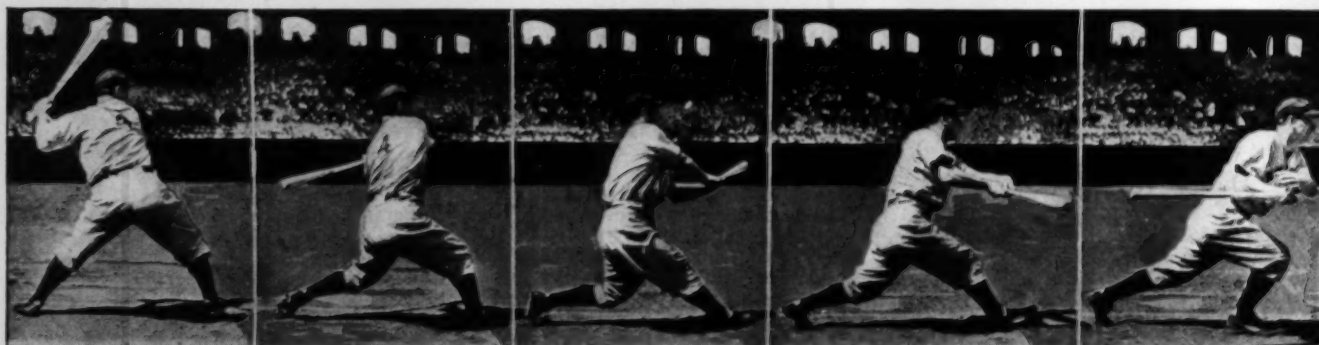
up the proper bases and learning the cut-off play on all throws from the outfield is not beyond the mental capabilities of a high school freshman. Have the catcher call the latter play instantly and vociferously. ¶High school catchers invariably block the plate before they have the ball when runners are trying to score. This is interference, pure and simple. Because of the excitement aroused by such plays, many umpires are afraid to call it correctly. A clumsy catcher can easily make it seem as though the runner was at fault. ¶Many pitchers with a tendency toward wildness can be helped by being made to pitch low. Even good batters have trouble judging knee-high balls, while a beginner can see shoulder-high balls. Moreover, young pitchers are usually not used to the elevated pitching mounds they encounter on good diamonds and the ability to keep the ball down is a decided asset. ¶Pitchers are not weak hitters because they are pitchers, but rather because they do not get enough batting practice. Let them hit in practice as often as any other player. ¶The difference between an ordinary hitter and a really good hitter is measured by the latter's superior timing. A curve ball does not confuse the eye—for catchers would never handle them if they did—but it tends to upset the timing reflexes of the batter. The first successful attempt to time a curve ball is one of the thrills of baseball. ¶Too many high school batters "take" third strikes. If there is any doubt about the pitch being a ball, it should be cut at. In addition, if it happens to be a "cripple," it should be hit confidently unless it's practically a wild pitch.

Wyoming in Federation

Wyoming was admitted to membership in the National Federation of State High School Athletic Associations at the annual meeting of the Federation in St. Louis, Feb. 24. Thirty-four states are now members of the Federation. A report of the annual meeting will appear in the April Scholastic Coach.

Lou Gehrig

The New York slugger going for a low one, and violating a number of the precepts of good form which he so carefully observes in the pictures on page 9.



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Here Below

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der pressure from foreign Olympic officials, just as they finally capitulated on the point to allow foreign nations to use Jews on their own teams, and later even submitted to placing Jews on the German team,* when it became apparent that the International Olympic Committee would compromise no further on this issue.

If Hitler really wants to convince anyone outside Germany that he is entitled to the respect of the world, he will repeal the Nuremberg laws which are the legal support of the Reich's inhumane treatment of her Jews.

We write the above in anticipation of the glowing praise for Germany that will undoubtedly flow from the lips of our Olympic officials upon their return in a week or so from the winter games. As long as they confine themselves to praising the hospitality of Germans toward foreign visitors,† the excellence of German cooking and Bavarian beer, and the Germans' undeniable skill for dramatization, no one will object. But if they attempt to draw any conclusions from these observations in support of Nazi ideology, they will only make themselves look ridiculous.

*One Jew (Rudi Ball), was drafted for service on the German hockey team; and one Jewess (Helene Mayer, who recently left a teaching post in California to return to her people in Germany) has been drafted for the German fencing team.

†There isn't any doubt that the Germans are behaving beautifully to their guests. Any visitor who expected to behold militarism in full display here has been disappointed. Outside of the Bavarian policemen, each of whom is clad like an officer of the General Staff, the only uniforms in sight are those of the Labor Service lads. . . .

"And in another respect Germany's word is being scrupulously kept. This world gathering is not being used for any active propaganda. Barring a speech made by an overenthusiastic Nazi chieftain two days before the games opened—for which he was soundly berated as having disobeyed orders—not a Nazi peep has been heard since. . . .

"However, this is really the most efficient propaganda conceivable. There is probably no tourist here who will not go home averring that Germany is the most peace-loving, unmilitaristic, hospitable and tolerant country in Europe and that all the foreign correspondents stationed here are liars."

—From Frederick T. Birchall's Feb. 11 dispatch from Garmisch Partenkirchen to *The New York Times*.

Contradictory is the following dispatch from Westbrook Pegler, Scripps-Howard special writer, who attended the winter Olympics:

"Soldiers are everywhere in Garmisch-Partenkirchen, where the athletes of many nations are competing on ice and snow and in the brotherhood of sports. There are soldiers in the old German field gray, soldiers of the labor corps in brown and special soldiers of the bodyguard in black and silver. All the soldiers wear the swastika, and it's seen again from the red postoffice trucks and the army transports, which go tearing through the streets . . . a strange suggestion of war in the little mountain resort . . . I do not know why there are so many troops and so much army transport at a great demonstration of international friendship in Garmisch and I hesitate to inquire unless that be construed as an effort to obtain military information."

And, later, writing from Munich, Pegler referred to the 1936 Olympics as "the great politico-military demonstration conducted by the Nazi state under the nominal auspices of the International Olympic Committee."

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*Based on actual letter from our files.

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